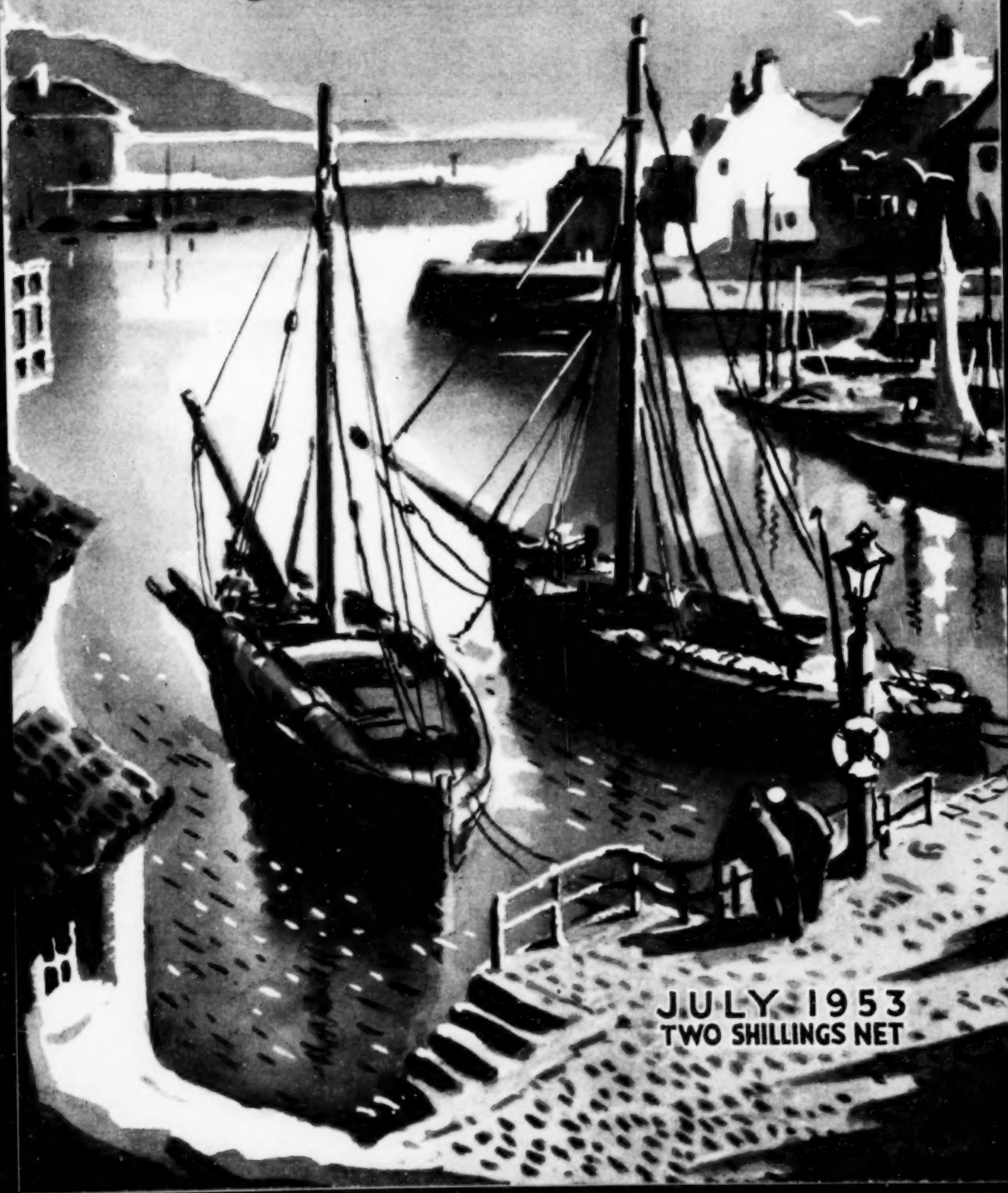
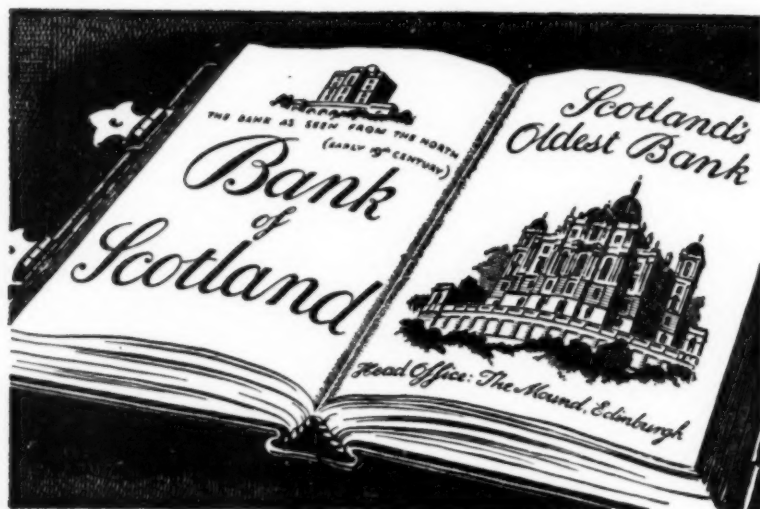


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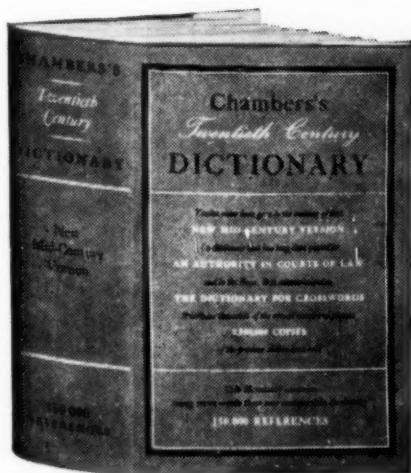
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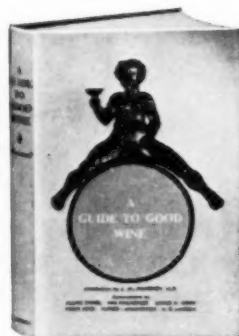
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The Case of Valentin Lecormier

GEOFFREY HOUSEHOLD

I

M. LE CONSUL:

I ask you to excuse the paper upon which this is written. Where I am, the necessities of civilisation do not exist. Even the poor devils of police who patrol the frontier do not normally carry paper. In order to write to you I had to capture an assistant-inspector of customs, and relieve him of his spare account-books.

This is not a begging letter. You cannot help me. Whether I live or die depends entirely on myself, and I do not know which I deserve. In any case one rarely receives what one merits. No, M. le Consul, I write to you only to establish the nationality of my wife and children.

We were married by the priest of Ferjeyn on 15th April 1944. The marriage is recorded in the church register; and also the births of my three sons. They are French and, though so young, they know it. In twelve years they will be ready and willing for their military service. I shall be grateful to you

if you will enter their names upon the register of French citizens. As for my wife, she is a simple Christian Arab. Syria is her country, and without me she would be lost in France.

M. le Consul, my name is Valentin Lecormier, formerly sergeant-major of cavalry. I am a deserter. It is very rare for a warrant-officer of the regular army to desert, but I will explain it as best I can. There may be some record of me in your office files, but it is probably considered that I am dead.

I joined the Army in 1932. For me it was a profession as congenial as any other, and, to tell you the truth, what most attracted me was the pleasant life of our little garrison towns. I was not such a fool, of course, as to suppose that I should spend all my years of service under the trees of the main square; but we export our civilisation with our soldiers, and I knew that I should seldom be far from a shaded pavement upon which to spend my hours of leisure.

When that damned Hitler unleashed his

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war, I had already passed four years in Beirut as a corporal-instructor training Arab levies. I assure you I had no ambition. I merely applied for the jobs which suited my taste for small towns, and pretended to have the requisite qualifications. I persuaded my superiors I spoke Arabic. And if you are young and make a show of an accomplishment which you wish you had, it will not be long before in fact you have it. That's life.

After the fall of France, when our army and government in Syria declared for Vichy, I rode over into Palestine with my troop to join the Fighting French. It was not a question of choice. I have never made a choice for myself more than any other man. Choice? There is no such thing. One follows events, and gets out of the mess as best one can. That is, I believe, what they now call existentialism. A long word for the practical philosophy of every soldier.

No, I did not trouble my head with de Gaulle or Pétain, or faith in France or the lack of it. I considered only my affection for Colonel Collet. A mountebank. One admitted it. Still, a soldier must feel love like the rest of us, and he cannot be held responsible for where he places it.

After that there was no time for decisions. The campaign against our own countrymen in Syria. A harsh interval while we exchanged our horses for armoured cars. The Western Desert. Bir Hachim. And, believe me, M. le Consul, the world was wrong to make such a fuss of that battle. I was there, and I tell you we could not run away because the Boches were all round us. And then it was hardly decent to surrender when there had been so much surrendering in France.

And so, better men being dead, I was hoisted up to squadron sergeant-major, and on we went to Tripoli—where one saw a town and a square and a civilised café again—and into Italy and back to Syria for rest and reorganisation.

IN that narrow strip of Syria between Turkey and Iraq, which is called the Duck's Bill from its shape, there was some fear of a rising of Moslem fanatics. So they sent me out in charge of a detachment. A captain was in command, of course, but an old soldier was needed to see that he came to no harm. Since I now spoke fluent Arabic, it was an excuse to present myself with a deal of liberty. I used

to pass my days at Ferjeyn, which, being an island of Christians set upon a mountain in the middle of two hundred thousand Moslems, was the right post for a man of tact.

At Ferjeyn, M. le Consul, I fell in love. She was the daughter of the headman, John Douaihy. What else could you expect, given eight years of foreign service and no hope of France? Our regiment had not been picked for the invasion—for there weren't enough of us left to be any use to a higher formation—and so we comforted ourselves with the thought that it could not possibly succeed. I repeat, we had no hope of France.

I should not like you to think that my love for Helena Douaihy was that of a soldier who marries, in a moment of supreme boredom with interminable male society, the first decent girl he has seduced. No, as a responsible warrant-officer, I used to warn my lads against such unsuitable attachments.

I did not seduce her. I have nothing of which to accuse myself but the strange and bitter chivalry of the French. Since it has persisted in our nation through five centuries of common-sense, it is not surprising that in a poor devil like myself it should outlive those many years when my only choice was between celibacy and army prostitutes.

It was her rags, I believe, that aroused in me an overwhelming desire to cherish her. Her father was by no means badly off. But you know the Arab. He doesn't waste money on daughters, unless they must be curry-combed and clipped for church or a party. Yes, it was her rags. When Helena was working in the fields or drawing water, she seemed to me like a fifteen-year-old princess of the romances, dressed in the clouts of the kitchen-maid. She had worn her one frock so long that the stuff had become threadbare over her breasts, worn away by the continual sharp pressure from within. Well, that is not a phenomenon which repeats itself; but her face has kept its delicacy. I assure you that one would turn round and stare after her even in the streets of Paris. And she has been a wife without reproach. That is what I wish to impress on you. In her way she is a true bourgeoisie, and she has helped me to bring up our sons so that France can be proud of them.

IT was not then — on detachment in the Duck's Bill—that fate made of me a de-

THE CASE OF VALENTIN LECORMIER

serter. In the spring of 1944 we were ordered, for God knows what reason, to Cyprus, where we found ourselves among a lot of damned Englishmen and Greeks. Of the two, I preferred the Greeks. They have inherited the culture of the Roman Empire, whereas the English have not the least idea of what a town should be.

There we were. More training. For ever training. It seemed to us that we were destined to nothing but camps, year after year of camps, till we were old and grey.

It happened, M. le Consul, that the major wished to buy some wine for the officers' mess, and I for the sergeants'. The wines of Cyprus are fairly drinkable, but merchants are inclined to sell any filth in their cellars to soldiers, since the English, whose palates are rotted by beer and whisky, do not know good from bad. So we decided to go out in civilian clothes. The major pretended to be a French diplomat on leave, who had rented a villa in the hills, and I—I dressed myself as any poor and decent Syrian who might be his cook or butler.

We settled down in a cellar by the quay to taste what was offered. The wines were good and, to tell you the truth, we forgot all differences of rank. The patron didn't bother us. He slept behind his counter, and only woke up when we called for another bottle. The major was not a bad little chap, but of the right wing of the de Gaullists. He was a royalist and thought of nothing but some damned Henry V who was to come to the throne of France. As for me, I am a republican. True, the Third Republic made me vomit. But being what we are it is the best we could do.

Well, at three in the morning we began an argument. It was foolish. A sergeant-major should not talk politics, and least of all with an officer. But he was as bored as I. We were two Frenchmen, isolated among Englishmen and Greeks, with no hope of home. I cannot remember at this distance what was said. No doubt there were faults on both sides. Our nerves were exasperated. And so I found that I had hit my commanding officer over the head with a bottle.

I examined him. I had enough experience of wounds. I said to myself that he would not die, but that he would need a comfortable week in hospital. The patron had not woken up. In his trade, if one is to get any sleep at all, one must not pay attention to a little noise.

I bandaged my major and wrapped him in blankets, and walked out on to the quay.

M. le Consul, I had made no plan whatever. Choice, as at every turning in a man's life, was forced on me. It was that hour, with dark turning to grey, when no one takes a decision, least of all a soldier. He stands to, and obeys. As for the general who issued the orders the night before, he is fast asleep.

I walked on the deserted quay, regretting that I should never see my Helena again, for she would have married some village notable long before I came out of gaol. True, they might treat me more leniently. We old soldiers of the Fighting French were charitable to one another. But the best I could hope for was the mental hospital. And indeed I had well deserved that I, a sergeant-major, should spend five years sewing rabbits upon babies' nappies under the eye of the occupational therapist.

The black mass of Lebanon showed up against the red of dawn. It was not a cloud. It stood upon eighty miles of steel sea and striped haze, and so solid was it that I prostrated myself like a Moslem praying upon the quay, and bowed my farewell to Helena and to Ferjeyn and to Asia. I must admit that I was very drunk.

Then a voice hailed me from the dock: 'Brother, that is not the direction of Mecca!'

I looked up. A calque was drifting out on the dawn wind, her captain at the great tiller. Her sail was half-hoisted, and she was painted blue and yellow. I asked the captain where he was bound.

'To Beirut,' he said, 'if it pleases God. Come with me, brother, and learn the difference between east and south!' He took me for a fellow-Moslem, you see. And they don't care about passports and police controls, those chaps in the calques.

All the same, he intended a mere sailor's jest, I suppose, rather than a serious invitation. But I did not wait for him to change his mind. I would have obeyed any sensible suggestion from any quarter. I dived in, and he luffed and picked me up. I told him with much detail that I was a Turk who had escaped from an English prison. That amused him so richly that he did not ask too many questions.

And there I was condemned by a single impulsive act to the life of a deserter, and presented at the same time—for luck cuts both ways—with a chance of permanent freedom,

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since it would be assumed for at least a week that I was still in Cyprus.

THE west wind was fresh and steady, and by sunset we were close under the land. Part of our cargo, like that of any calque in wartime, was contraband. In the night the captain rowed his crates ashore on the beach of Batrun. Half-an-hour later he had resumed his voyage to Beirut, and I was walking to the coast road through a darkness that smelt of the spring rains.

By bus and lorry—and detours on foot around the control-posts of the military police—I reached Damascus, where I had banked for years the economies of my military pay. It was a little account which I had kept quiet. Not that it was dishonest. Far from it. Custom demanded that when an Arab trooper was posted to the squadron of his choice or recommended for promotion, he should give a little present. That was something which everyone knew, but of which no one spoke. So it was only decent that I should not flaunt my bank account before the eyes of the military authorities.

I was sure that there would be no inquiry for me yet in Syria. After all, it was only forty-eight hours since I had deserted. So I presented myself at the bank without fear. There was a clerk on duty who knew me, and it was not the first time he had seen me in civilian clothes.

The sum was small. It wouldn't have bought a decent tobacco-stall in France. But it was enough for a house and farm at Ferjeyn, and something over. Provided I presented myself as a prosperous man, well dressed and careless, I had no doubt that John Douaihy would give me his daughter. They are easily impressed, the Syrians. So long as nothing is stinted at the marriage, they do not much care what happens to a daughter after.

The journey along the edge of the desert to Hassetché was arduous. I had no papers—beyond a good French military map—and so it was essential to avoid all roads and public transport. Stained with dust and salt-water as I was, I resembled the poorest of Arabs. I bought a camel and pretended to be taking it to market—always at the next town along my route. I have had charge of many animals in my time, but I tell you a camel is the only one it is impossible to love. One receives a more civilised response from an intelligent

jeep. Sometimes I rode my camel and sometimes I led her. She was only a stage property and of little use to me. Perhaps she was aware of it.

At Hassetché I sold my camel and bought a fine pony and dressed myself decently. Then I rode to Ferjeyn and was received by John Douaihy with that superb hospitality which the Christian Arab reserves for the elder European brother—provided, of course, that he behaves like a brother. John knew what I wanted from him, though we did not yet mention it. There was a difficulty to be disposed of first. He expected me to tell him that I had had enough of the war.

I should explain to you that our commune, isolated for centuries among hostile Mohammedans, saw nothing at all disgraceful in being a deserter. No fighting had ever counted for them but the long bickering between Christian and Moslem, which in their soil was native as the mulberry. War between Christian nations was to them as irresponsible as the jealousy between the House of France and the House of Anjou must have seemed to a sensible Crusader. A free fighting-man who withdrew himself from participation in any such lunacy was not to be blamed.

But why tell them at all, you will ask. Because I had to prevent them from chattering far and wide that there was a real Frenchman in Ferjeyn. If they understood that I might be wanted by the police, they would be as untruthful about my past as if I had been one of themselves. And it was not difficult for them to accept me. They think in terms of religion, not, as we do, in terms of nationality. I was Christian. I spoke Arabic. Therefore, if I wished to be, I was one of the commune. It is true that they were Maronites and I, according to that enthusiastic socialist, my father, was an atheist. But Ferjeyn and Helena were well worth a mass.

M. le Consul, I married Helena and I bought my few hectares of good land. My father-in-law—for, being headman, he had the right—gave me the identity-card of a man of Ferjeyn who had gone to Morocco twenty years before and never returned. I am no longer Valentin Lecormier. I am Nadim Nassar. I permit myself to bore you with these details, since I hope that you will wish to check the truth of my story. My sons, though they bear the name of Nassar, are in fact three little Lecormiers, and, I repeat, they look to France and to you to claim them in due season.

THE CASE OF VALENTIN LECORMIER

YOU have no interest in a renegade? M. le Consul, I plead my long service, such as it was, and I would beg you to understand that there is not all the difference you would think between Ferjeyn and a mountain-village of France. I was happier there than I have ever been. True, I was ravished by my little Helena, but ravishment is not necessarily content. I will try to tell you how I could be content, and still remain a Frenchman.

Where there is stone for wall and paving, one is not wholly a barbarian. My house was well above the commune, and three hundred metres below the top of the mountain. In a hard winter the lowest tongues of snow felt for the limit of my land and melted into the stone channels that irrigated my terraces. When the sluices were open, the water ran on an even slope, quite silent and without foam; but the rush was so fast and smooth that a leaf falling into the channel vanished to eternity as swiftly as a human life.

When you looked up from the plain of the Duck's Bill towards Ferjeyn, you saw nothing but stone, and strips of green. Terrace rose over terrace, and above each was the bare rock from which the earth had been stripped and packed into the narrow fields that girdled the mountain. But when you looked down from my house over the grey walls and flat roofs of Ferjeyn, there were only green tops, falling in steps, of orchard and vineyard and olive and wheat. I find that civilised, M. le Consul.

The life—well, it was a little primitive, but not unfamiliar. We had our group of village notables, and the café where we gathered at the end of the day's work. True, when I first knew it, our café was nothing but a hole in a ruin furnished with bench and counter. So I set into the pavement three tables which I had made with my own hands, and planted a vine to give shade. There we played our games and drank our wine and arrack—as good fathers of families, of course—and watched the life of the commune on the flagstones of the little square. There were John Douaihy and his brother Boulous, the priest, the saddler, the grocer, and myself.

The square was my delight. On the north side was an ancient, tumbledown colonnade with a roof of red tiles supported by slender pillars of stone. It had been built by a Greek architect exiled from Constantinople to our remote province. In your travels for France, M. le Consul, you must often have lived in

some alien and melancholy spot which, all the same, became a home for you because of an avenue of trees or the satisfying proportions of a single house or perhaps a garden. You will know then what I felt for our square. It was the link with my civilisation.

I cannot say that outside the square the streets resembled those of France. To tell you the truth, they did not exist. The houses were separated by mud in winter and dust in summer. As an old sergeant-major with a taste for tidiness, I did my best for proper streets, but without success. All the same, I persuaded Ferjeyn to establish a rubbish dump and pay a collector and a cart. That was a triumph. Admittedly he was the village idiot, but he was the only garbage man within a hundred miles.

You will have gathered, M. le Consul, that my advice was respected. I gave it rarely. If there were anything I wished to change, I was well content to spend a patient year in changing it. Peace—that was all I asked. Peace for my Helena and myself.

AFTER Syria was given her independence, the first thought of the simple Moslem peasants around us was to raid the Christians. A sort of celebration. It was very natural. Had the Christians been in the majority, they would have endeavoured to raid the Moslems. But the government, in those early days, was determined to be as efficient as the French. They strengthened the garrison at Hassetché, and they reminded the fanatics that Syria was a land of many religions, all with the same rights of citizenship. A massacre—even though a little one and carried out for pure sport—could not be permitted.

Then, as you know, the honeymoon ended and the politicians returned to the making of money. At Damascus there were revolutions. Over here, in our lost corner of the country, there was discontent. And with us when one is discontented, one distracts oneself by taking action. The gendarmerie is weak and scattered, and there is little to prevent a criminal from escaping into Turkey or Iraq. For my part, I prefer Turkey.

Day and night Ferjeyn began to talk of danger. I have never understood how the Arabs can be called fatalists. In a crisis they are hysterical as women. Danger—well, there was a little: of stones thrown, of rifles fired too high to do much damage, of a house

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burned and cattle stolen and a woman raped. Excitement that two of my old Arabic-speaking corporals could have extinguished by mere calm and authority!

We, the notables, met at night, conspiratorially, behind closed shutters, in my house or the house of John Douaihy or the priest's. That made a good impression on the village. But my venerable colleagues had no more sense than children. They wanted me to make a fortress of the mountain.

'Willingly,' I answered. 'If I have twenty men who shoot to kill, I will hold Ferjeyn from one harvest to the next.'

Ah, yes, I could have them. What did I think? That they were no soldiers? Of course I could have them, and the boys and greybeards too. . . .

But they knew, and I knew, that this was all talk. The truth was that they dreamed of constructing an impassable Maginot Line, for they wished to hold Ferjeyn with the least possible bloodshed. And they were right. We were sixteen hundred men, women, and children, surrounded by two hundred thousand Moslems. The only tactics by which I could hold Ferjeyn—cunning and ambush and ruthless slaughter—would have meant blood-feuds with the Christians that might endure a hundred years.

When I had pointed out that even a Chinese Wall would not stop Moslems unless we had men on top of it trained to kill, the priest begged me to go to Palestine and buy a tank. For him a tank was a piece of magic that would make Ferjeyn invincible. He might have been talking of a sort of beetle that could move itself and fight.

I soon had enough of these councils of war which were only exclamations. I refused to take command, I wasn't having any. I was content to eat and drink and till my land. That was my life.

They did their best to persuade me. The priest waggled his fingers at me as if I had been a child he were about to baptize, and told me to fight for my religion. I was polite. I had to appear impressed. But I could not share his opinion that it was a service to God

to murder Moslems. All my life I have been unwilling to anticipate the intentions of the high command.

Another night, John Douaihy warned me that he and I might lose our property. He was at his most dignified. He spoke like a governor of the Bank of France. I shrugged my shoulders. What could we lose? We were not rich. And a crazy band of Moslems is not an army of occupation. They do enough damage to boast about, and then go home. They cannot take away the soil in wheelbarrows.

Then the women and children. I must defend them. That was the excitement of the saddler, who, in his old age, had married a wife nearly as pretty as Helena. Well, the appetites of raiders are not a matter upon which one should let imagination rest—unless one is the wife of an old man—but someone has to be sacrificed, and memory is short.

'Brothers,' I would say to them, 'let us endure the chastisement that God sends us in the firm faith that it will quickly pass—so long as we have bribed the pashas, given feasts to Moslem notables, and assured the interest of the gendarmes.'

All that we had done. We knew how to look after ourselves. Without any government at all, Ferjeyn would have got on very well with its neighbours. No need of proof. The Christians had been on their mountain since the Arab conquest. The flagstones of our little square were Roman. That was the strength of my argument. I appealed to history.

But, alas, we had a government, and they took a hand. They withdrew all troops from the district. Their intention was obvious. They meant to divert attention from their misdeeds by allowing a raid on the Christians, and then to punish those who were responsible. Thus they could imprison a number of their political opponents without having to admit the real reason.

Down on the plain the harvest was over and the peasants were idle in the heat. Any day the attack might come.

(To be continued.)

August First Story: *Raise No More Spirits . . .* by John Moore.

The Truth about the Doones

ELIZABETH WALSH

LORNA DOONE. Who has not heard of this romantic novel which has, since its publication in March 1869, become a legend of the Devon and Somerset borders and created a tourist centre known throughout the English-speaking world as 'The Doone Country'?

'Few things have surprised me more, and nothing more pleased me, than the great success of this simple tale,' wrote its author, R. D. Blackmore, in the Preface of the sixth edition. Yet this 'simple tale' has caused greater controversy than any other romance of its kind, for there is a mystery concerning the characters who live so vividly in the seventy-five chapters. Who were the Doones? Were they fictitious characters who, through the skill of a novelist's art, became immortal beings of Exmoor? Or were the Doones real people who were woven into a story packed with romance and adventure?

In his Preface the author seems to suggest that the story was based on fact, for he writes: 'Any son of Exmoor, chancing on this volume, cannot fail to bring to mind the nurse-tales of his childhood—the savage deeds of the outlaw Doones in the depth of Badgworthy Forest.' And, as a still further proof of authenticity, Blackmore gives foot-notes that lead his readers to believe that the exploits of the infamous family were factual.

The earliest mention of the Doones, however, does not occur in a guidebook of the district until 1872, when the eighth edition of a popular series gave its readers their history, obviously based on Blackmore's novel. Pressed for the origin of his plot, Blackmore appears to have maintained a dignified silence, although at one time it was announced that he was going to publish a book entitled 'Slain by the Doones,' in which their true history was to be given; but this book never

appeared, and the mystery remained to tantalise the 20th century.

IN the *West Somerset Free Press*, on 12th October 1901, there appeared an article, 'The Short History of the Original Doones.' The author, Ida M. Browne, claimed to be 'Audrie Doon,' a direct descendant of Sir Ensor Doone, through his eldest son, Charles, the 'Carver Doone' of the novel, who, so she said, was her great-great-great-grandfather.

According to this author, the Doones of Exmoor were the banished members of the Clan Moray, who had originally spelt their name as 'Doune,' before leaving Perthshire for the West Country. Quoting *Burke's Peerage* as her authority, 'Audrie Doon' tells us that in 1580 Elizabeth, Countess of Moray, eldest daughter of the Earl of Moray, who was murdered on 20th January 1570, married Sir James Stuart of Doune, who assumed the title of Earl of Moray.

Sir James Stuart of Doune had a twin brother utterly unlike him in character and disposition. His name was Ensor, and he claimed to be the elder twin. Their quarrels over the rightful ownership of Doune Castle, on the death of their father, Lord Doune, made them bitter enemies. And, when on 7th February 1592 James, now Earl of Moray, was murdered by the Earl of Huntly, it was rumoured that Ensor was the real murderer of his twin, and Huntly merely an agent. But there was no proof of this, Huntly was pardoned, and later Ensor was knighted by James I during his triumphal progress from Edinburgh to London.

There the matter might have ended, but Sir Ensor Stuart changed his name to Doune, an act that so enraged his brother's successor to the Earldom of Moray that Sir Ensor

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received an ultimatum. He must return to the name of Stuart, or accept voluntary exile, forfeiting his money and lands; should he refuse to do either, he would be charged with his twin brother's murder. To strengthen this threat, the Earl occupied Doune Castle, making Sir Ensor a prisoner. Forced to make his decision, Sir Ensor yielded to his wife's pleading and consented to leave Scotland, and, attended by only one servant, Tamie Beath, they went to London.

There Sir Ensor tried to gain an audience with King James to state his case, but this was refused him. After several months he realised that the King had no intention of helping him to obtain redress. He, therefore, decided to 'shut himself away from the world in the most remote district they could discover, and, at the end of thirteen days, they found themselves in the Oare plain of Exmoor. In the valley of the East Lyn, a short distance from Oare Ford, they halted and took possession of a half-ruined farmhouse, which they converted into a dwelling.'

Having found a setting not unlike his Perthshire home, Sir Ensor became a professional outlaw, preying upon the local farmers and any travellers who dared to journey from Lynmouth Weir to Porlock. Soon other unsavoury adventurers joined him and a criminal colony settled in Badgworthy Forest.

Lady Doune bore her husband four sons. Charles, the eldest, married twice, but had only one son, Ensor. His brothers followed his example and abducted local girls as their wives, and raised large families, as did Tamie Beath, whose four sons became the personal servants of the younger Dounes.

For seventy-three years these 17th-century gangsters held their neighbours terrorised. During this time Sir Ensor died, an aged man of eighty-four, and Charles Doune became head of the band. Then, in 1699, 'a messenger arrived at Porlock bearing evident signs that he had travelled a long distance. He inquired if the Dounes lived thereabouts, and was directed to Oare Valley, where he sought an interview with Charles Doune.'

The messenger carried a letter from Charles Doune's cousin, Alexander, who had succeeded to the Earldom of Moray. The Earl suggested that the exiled members of the clan should return to Scotland, for Sir Ensor, and the kinsman who had banished him, being dead, there seemed no reason to prolong

the family feud. After some hesitation, Charles Doune agreed to return to Scotland. Rather surprisingly, he and his gang gave a farewell feast to such of their neighbours who dared to come; these were few, the majority preferring to watch the flames dancing on Dunkery Beacon from a safe distance.

It took the Dounes a month to reach Doune Castle, where they were welcomed by their kinsman, the Earl, and received back their money and lands. But the old feeling of distrust remained, and the Dounes retired to the remoter parts of their inheritance. Soon the two branches of the family drifted apart; only their crests and their tartans showed that they were clansmen, though on the Doune tartan there was now a broad black stripe, which distinguished it from that of the Stuarts.

To give further proof of her story, 'Audrie Doon' quotes two entries from an ancestor's diary, written about fifty years after the return to Scotland:

'Sept. 3rd 1747. Went to Barum on my way to the place they call Oare, whence our people came after their cruel treatment at the hands of the Earl of Moray.'

'Sept. 7th. Got to Oare, and then to the valley of the Lyn. The scenery very bonny, like our own land, but the part extremely wild and lonely. Wandered about, and thought of the old days and the doings of the family while here, which I gather were not peaceful.'

Not content with this, 'Audrie Doon' also says: 'In addition to these [entries] I have at the moment before me an old flint-lock pistol, fairly well preserved and engraved. Midway between stock and barrel are the words—"C. Doone" in the handwriting of the period, and on the reverse side—"Porlock": and an old pair of bellows . . . bearing the inscription "E. D. Oare, 1627."'

IS this amazing story the truth about the Doones? Did Blackmore contrive his plot from it? This was the question that experts on the West Country did their best to answer. They found that research in *Burke's Peerage* and in Douglas's *The Peerage of Scotland* failed to show that Sir James Stuart of Doune ever had a twin brother called Ensor: neither did a study of the names of the knights and baronets created in the reign of James I give the name of Ensor Doune, although Francis Stuart, eldest son of the Earl of Moray,

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appears in the list of Knights of the Bath who received the accolade on 4th June 1610, when Prince Henry was created Prince of Wales. And, without Ensor Doune, the whole story as recorded by 'Audrie Doon,' dissolves into a Scottish mist that only makes the Exmoor fog the thicker.

Foremost to take up the challenge and disprove the Scottish theory was E. J. Rawle. In his book *The Doones of Exmoor* (1903) he declares that none of the old inhabitants of the district had ever heard of the lawless Doones until after Blackmore's novel was published. He gives an extract from *Records of Stag Hunting on Exmoor* (1886), by the Hon. John Fortescue: 'Sept. 22nd, 1879. Brenden Yew Gates. Two stags harboured in the Doone Valley—a new name. It used to be thecombe between Hoccombe and Withycombe ridge.'

E. J. Rawle also searched the Oare church registers and failed to find the name of 'Ridd' or 'Red' until long after the 17th century, although *The Referee*, of 28th June 1903, told its readers that a producer of a dramatised version of *Lorna Doone* would be 'assisted by a Miss Ridd, a descendant of the hero of the story'! But, for all his disbelief, Mr Rawle could not say with complete certainty that the Doones did not exist outside R. D. Blackmore's mind.

C. E. H. Chadwyck Healey, K.C., in his book *The History of Part of West Somerset*, published in 1901, believed that the Doones had lived round about Oare, for the Rev. W. H. Thornton, a very aged clergyman who had once been curate of Countisbury, declared that the local people had told him that the Doones were derived from a fugitive from Sedgemoor, who, escaping from Judge Jeffreys's clutches, lived in a hovel in Oare valley, being joined by others from the same battlefield.

Again, J. R. Chanter, another expert on local legends, gives an account of his meeting in 1839 with 'an old woman named Ursula Johnson, a reputed witch,' who told him that at Badgerworthy, commonly called Badgery, there were the ruins of a forsaken village, and that tradition held that these had belonged to a gang of robbers who were the terror of the countryside in the days of the Commonwealth. Their outrages culminated in the doing to death of the infant son of the Badcocks, at Martinhoe, immortalised in the couplet:

*If anyone asks who killed thee,
Tell 'em 'twas the Doones of Badgery.*

It was this deed that made the local people rise against the gang and destroy the whole robber village; but a few of the Doones escaped, and, according to another ancient countryman, the last of them died in 1800. An old man and his little grand-daughter, who, setting out to sing carols one Christmas in the hope of some coppers, were 'found together in the snow, quite dead, on the road between Simonsbath and Challacombe.'

All these legends must have been known to Blackmore, for he was himself a Devonshire man, and had known the curate of Countisbury, and also J. R. Chanter, who must have told him the stories of that 'reputed witch,' Ursula Johnson, who surely reappears as 'Mother Melldrum' in *Lorna Doone*.

THE fiercest arguments as to the reality of the Doones came after Blackmore's death in 1900; but the silence Blackmore observed on the subject during his lifetime suggests that perhaps there was some secret he wished to preserve connected with the writing of his most famous novel.

Does the answer lie in *Fraser's Magazine* for October 1857? In that issue is a contribution entitled *Wanderings on Exmoor*, by the Rev. George Tugwell. In this there is a hero named 'Jan,' who has all the characteristics of 'girt Jan Ridd.' Moreover, it tells the story of 'the Doones of Badgerworthy, at whose name the Exmoor children quake.' Even the couplet on the Martinhoe murder is there, save that the word 'ate' occurs instead of 'killed.' More revealing still, the author gives the whole story of the famous highwayman 'Faggus' and his 'Enchanted Strawberry Roan.' Could it be that, like many another before him, including Shakespeare, Blackmore 'borrowed' the foundation of his story from this source and with his skill exalted the Doones almost to the dignity of history?

But, whatever the truth about the Doones, Devon and Somerset will always be peopled by their ghosts—'heavy men, and large of stature, reckless how they bore their guns, or how they sate their horses, with leather jerkins, and long boots, and iron plates on breast and head, plunder heaped behind their saddles, and flagons slung in front of them . . . like clouds upon a red sunset.'

The Rumbling Traction-Engine

BERNARD J. FARMER

THE giant steam traction-engine is slowly passing from the road; but some still remain and do useful work, on farms, hauling circus cars, or moving loads of exceptional weight, and wherever they go they seem to arouse interest. 'I wouldn't like to meet that on a dark night,' remarked a man to me as an enormous engine passed, flywheel whirling, pulling behind it a long line of circus cars.

Yet, if only he knew it, the traction-engine is one of the safest vehicles on the road. The law limits the speed to 5 or 12 m.p.h., depending on the weight; and an engine over 7½ tons must have two men in charge, engineman and steersman. These two work together with extraordinary skill, one at the throttle of the engine and the other at the steering-wheel, which on anything like a bend he must turn for dear life. 'We are like husband and wife,' said an engineman, who descended for a cigarette and a chat. 'Eh, Dick?' he laughed to his steersman. 'And we don't fight as some married couples do!'

Some old towns have very narrow twisty streets, but the great engines, travelling in the early hours of the morning, where circumstances justify it, negotiate them without any trouble. It is a matter of experience. 'It takes years to make a good traction-engine driver,' my informant told me, gingerly handling his cigarette with one huge blackened hand. 'It ain't like driving a petrol tractor, which almost anyone can do after a day's showing-how. No, there's a lot to learn with a big steam-engine.'

'Take stoking,' he went on. 'That's an art in itself. A bad stoker would stall the engine in five miles. Then take going downhill. I've got a brake which acts on the big wheels, but the main brake is the engine itself—the reversing gear. It takes a lot of strength to pull the lever over against a full head of steam; and if you try to do it at the wrong time—

well, you may tear the heart out of the engine. Then there's changing gear. We can't do it nice and quick as the motorist does. My big engine has three gears, and to change each one means a stop, then the lever is shifted to the right notch and pinned. I've got to judge which gear should be used to take the engine up at a reasonable pace. If I have to stop on a hill—well, an engine of eleven tons and a load of fifty may need a lot of holding.'

MY friend had been an engine-driver all his life and he lamented the passing of the giants—the 'old fellows', he called them, though he referred to individual engines as 'she'. They can do a good day's work on about fifteen hundredweight of coal. The only other expenses are water, road fund licence and insurance, and a little oil. And the engines are built to last almost for ever.

'Properly looked after, they should never wear out,' declared my friend. And quite obviously his engine was lovingly tended. The bras spillars of the canopy shone; her name-plate, with 'QUEEN ELIZABETH' cast in bronze, would have put many a professional man's brass-plate to shame; and even the hose used for dipping into ponds to draw water had been carefully whitened.

About this water-drawing business my driver told me many stories. In the old days, when traction-engines were common, there was constant difficulty in getting enough water on a long haul—they can use a hundred gallons an hour—and enginemen and owners of ponds were often at daggers drawn. 'I remember one farmer,' said my friend, 'who came on the scene as we were nicely filling our forty-gallon tank. "Can't you see my notice: 'No engines to draw water from here?'" he shouted. "Well, no, guv'nor," I replied. "I'll tell you a secret. I can't read. No more can

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my mate." That put the farmer in a proper bate. The row ended the way rows often did end—free passes to the circus for the farmer and his family. Presently, he said to me: "You're the quickest scholar I've ever met." And in a flash I saw what a fool I was—I was writing out his passes! Still, the farmer was a sport after all and we got our water, without which my old lady can't move an inch.'

THE history of the traction-engine is obscure and hard to ferret out. So many records have been lost. It would seem that the first road locomotive, built to carry passengers, was made by Colonel Maceroni in 1833, he and one J. Squire patenting the multitubular boiler. Colonel Maceroni was hampered by lack of funds, and his engine was never a commercial proposition.

In 1856 Charles Burrell, of the famous Thetford firm of Charles Burrell & Sons, made the first road-haulage engine, using the Boydell patent wheel, in which the engine lays down its track, proceeds over it, and takes it up again. This track was known in the works as elephant's feet. The engine was steered in front by a man standing before a wheel, much as a sailor steers a ship.

In 1858 the Burrell-Boydell horse-steered engine appeared; and in 1858, also, Thomas Aveling brought out his self-moving steam-engine. Because of the laws made in Britain against steam-engines, most of the early traction-engines were sold abroad, to Russia, Turkey, and India; and there some of these engines may be working to-day. Some of the laws were indeed ridiculous. One of them was that engines must not blow off steam, which meant very fine stoking. Another was that they must consume their own smoke. What an engineering proposition!

Later, when these laws were eased and the man with the red flag was allowed to disappear, many firms entered the traction-engine business: Foden; Foster; Fowler; Hornsby; Garrett; McLaren; Ransome, Sims & Jefferies; Savage; Robey, to name but a few. In Norfolk alone there were thirty-one firms. Aveling & Porter of Rochester, Kent, one of the pioneers, whose 'Invicta' sign is so familiar, still continue at Grantham, as Aveling Barford, making road-rollers.

Progress in design steadily continued. Chain-drive gave way to gear-drive, most of the gears being housed internally. Compound

cylinders were used. And engines became more manageable. My circus friend told me of an early engine, nicknamed 'Jumping Jehoshaphat,' which was decidedly skittish. When pulling a heavy load the machine was inclined to rear up backwards. 'A bit awkward,' admitted the driver, 'until you got used to it.'

The heyday of the steam traction-engine was from about 1880 to 1910. In 1929 Burrells ceased to make engines; and now no firms make them. In 1910 the cost of a Burrell General Purpose Traction was about £1000. This engine, meant largely for agricultural work, was fitted with a spoked flywheel, but many road engines, particularly those made specially for fairs, were fitted with a solid flywheel as this was considered less likely to frighten horses.

A real monarch of the road was the Burrell Showman's Road Locomotive, costing £2500. It was fitted with a dynamo, belt-driven from the flywheel, to provide lighting for the fair; and also with a car-lifting crane. Equally imposing were similar engines turned out by other firms, such as Savage's, who also made engines to drive roundabouts and organs. These great engines would do everything in the way of lifting and hauling required by a fair. They would easily haul 50 tons, and on a good level road exceed 12 m.p.h. In fact, the Burrell in top gear would do 20 m.p.h.

Savage's made what was called a centre engine. When the hauling and lifting was done, the engine was made the centre-piece of the roundabout, which it would drive by means of a vertical shaft, while a little engine on the smoke-box bracket drove the organ. If you can believe my friend the driver, these great steam-engines, true friends of the showman, would even think for you. 'Once, mister, a mate of mine set his engine to a nice easy speed, driving the dynamo, and went off to do something else. He forgot his dinner-hour, and the engine blew her whistle for him!'

A tall story, but there is something human about these huge machines, as most will agree. They are dying out because coal is tight and the oil-engined tractor is cheaper and, in some respects, more convenient. When an oil-engine stops, the fuel costs stop; and, of course, you can't let a fire out and expect to raise steam again in five minutes. But the infinitely variable pull of steam by mere manipulation of the throttle has yet no equal;

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and in the days of the Blitz some of the old traction-engines came into their own. They were used to demolish buildings made dangerous by bombing; and to see them heaving away at cables attached to a wall—well, that wall had to come!

A FEW final facts for enthusiasts may help to fix the date of any engines they happen to come across. Three-shaft transmission, introduced by Thomas Aveling, was in general use until about 1890, when the majority of builders went over to four-shaft transmission. But Burrells continued to build three-shaft engines until they ceased traction-engine production altogether.

Machine-cut steel gearing dates from about 1924, when it took the place of cast-steel gearing. Road springs and compounding date from about 1887. The Pickering governor

was introduced by Burrells about 1905; and it may be of interest to add that single-cylinder engines are easier to govern than compound, which accounts for their being used for ploughing and threshing engines. The compound engine, however, besides being more economical, is quieter and smoother in starting.

'I should think engine-driving is a healthy life,' I said as my friend the driver prepared to take the road.

'Healthy, mister? I ain't had a day's illness in my life. Traction-drivers never die. They only retire just to give young fellows a chance.' He winked at me and climbed up to his side of the engine, while his mate, Dick, took the other. The engine was in mid-gear to brake. The driver pushed the lever of the Stephenson link-motion forward. He eased the throttle open and smoothly, mightily, 'Queen Elizabeth' pulled away.

Sunset Voyage

*Dreamboat, sail the Sunset Seas,
Red and orange and gold in hue:
Holst your sail of violet,
Voyage the seas of pearl and blue.*

*Past lagoons of scarlet fire
Cloud dunes ripple far and near:
Where the turquoise lakes lie secret,
Dauntless dreamboat, bravely steer.*

*Into the Land of Sunset sailing,
Anchor in the sapphire bay.
Coral dreams and ivory,
Dreams for night and dawn-o'-day,*

*Dreams deep-red from heart of roses,
Dreams kissed gold by lover's lip,
Silver dreams for little children,
All to load you, little ship.*

*Laden dreamboat, sail back homewards,
Treasure-piled from stem to stern:
Through the twilight hush of evening,
Home to haven, soft return.*

*Tired old world, uneasy sleeping,
Sighs, then at your coming, smiles,
Heartened by the dreams you bring it,
Dreamboat, from the Sunset Isles.*

MARJORIE HERBERT.



The Travelling Man

THOMAS KELLY

WITH a jaunty shuffle Manus Mulkerrin drifted down the winding path which led across the heathered hills from Kildorgan to the hamlet of Lisnacree. Now and again he paused, shielding his eyes against the golden glare of the afternoon sun that was dancing on the rim of the bay before sinking in a slowly-fading blaze of molten glory into the Atlantic.

His study of the landscape spreading beneath him was not prompted by any artistic appreciation as he looked into the giant saucer of the fertile valley. The maze of little fields of pasture and of tillage in many shades of green he barely saw at all. But the thatched cottages which showed up as patterns of brown and white against the prevailing background of emerald held his appraising eye. He was trying to decide which of the houses in the hollow beneath might offer the most likely prospect of a satisfying meal under a warm roof.

For Manus did not hold himself as one of the bedraggled brotherhood which craved alms with whining insistence. To him the term tramp would have come as an insult. His clothes—wheedled from the wardrobe of a substantial house—had been tailored for a benefactor who discovered belatedly that a

member of his household had passed them on to a wayfarer on whom fortune had frowned.

Manus Mulkerrin claimed membership of the little band of unfortunates that walked the roads of Ireland under the tempered title of travelling men. He had joined the higher section of beggarm, the spoiled teachers and lawyers and other might-have-beens who were always willing to tell a story, or recount a personal experience, in exchange for a meal or a lodging.

MANUS'S shrewd eye finally decided him to head for the comfortable-looking two-storey house of Brian Falvey. There he hoped he might be recognised as one of the tribe that had seen better days—that had, indeed, by some freak of fortune, been robbed of its birthday promise of the best days. 'Good luck to all under this hospitable roof,' he called as he confidently pushed back the half-door and peered into the bright kitchen.

'God save you kindly, stranger.' Brian Falvey's wife dropped the cup she was wiping, and hurriedly dusted a chair with her blue apron. As she placed it in the window corner she said pleasantly: 'Tired out you must be, from the grey dust of the roads, and the

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parching drought that comes with the long travel.'

'That's the true word, spoken by the most discerning lady I have met the length of this day.'

Mrs Falvey recognised the long, drawn-out sigh of the mendicant as wrung from a broken spirit.

He lowered himself fastidiously into the well-worn chair as he pursued: 'But I'm not the only one in a callous world that's cast to the wayside, while the usurpers and the heartless are riding in limousines that fling the mire, or swirl the dust around the dispossessed.'

'Glory be!' exclaimed Ellen Falvey. 'Maybe 'twas well-doing you were at one stage in your career? 'Tis the talk of a learned man you have surely. Is it a far way your feet brought you this blessed day?'

'More than a dozen of the lengthy miles of Mayo I've traversed since the sun rode up into the blue sky. And the only thought of comfort or consolation that rose in myself came and I passing the little graveyards on the sloping hills. Maybe there was someone stretched there, I soliloquised, would be willing to change places even with my poor self. But that was cruel consolation, with the sun riding in the high dome of heaven, and a scurry of song-birds trilling out the tuneful thanks of their happy warbling.'

The woman was busily stacking peats around the fire: 'Maybe 'tis something to eat you'll have, my poor man?' she prompted, giving him a sympathetic glance.

'That same would be entirely acceptable,' Manus Mulkerrin agreed with another sigh. 'But don't be troubling to make me a special meal, for it's not my way to cause inconvenience.'

'A boiled egg maybe?' suggested Ellen Falvey.

'An admirable suggestion, my hospitable hostess. And maybe there might be a remnant of cold tubers, left over from the midday meal? If so be, it's myself would much fancy a potato-cake. Nice and thick I like it, with lumps of butter wedged between the slits of the cut farls, till it dribbles at the edges with the lusciousness of honey dripping from the bulging sections being lifted from the warmth of the hive.'

To the woman there came a thought that her visitor was just a little too detailed in his directions, but his look of patient resignation checked it. 'Maybe 'twas the too-soft rearing

you had,' she chided gently as she settled the pot-oven into a circle of glowing turf on the hearth.

'Full and plenty, and to spare, my gracious madam, was always in my father's big house,' the beggarman elaborated. 'In the lofty kitchen, rows of dangling hams, lines of bacon flitches fit to pull the supporting hooks from the oak rafters. A drove of cows, half the size of an autumn fair, coming to the bawns for the milking. A dairy would be as busy as a branch of a co-operative creamery. Scullery-maids, parlour-maids, and a saucy cook with a serving-woman to attend her every beck and call. A governess for myself, while I was a pampered youngster in white and velvet, and I to be the only child. Then a tutor, to fit me for whatever college or seminary I chose to pick from all the curriculums of the scholastic world.'

'Do you tell me that now?' The woman was looking at him in wide-eyed amazement. She turned for a moment to the frying-pan, which sizzled its protest as she ladled dripping into it. 'Sure, 'tis the like of the real quality you must have been so. But I often heard them colleges wasn't sensible places at all. Maybe 'twas in one of them you got the great notions was so high that they dragged you low at the finish?'

The travelling-man nodded in assent. 'Still, I can only blame the academies for not having taught me what every college should teach, but all of them neglect. I refer to that all too rare virtue known as common-sense. Perhaps those with native cunning born in them don't need such teaching, but that same quality was one that I always lacked.'

'Cunning?' Ellen Falvey repeated, with a thoughtful shake of her greying head. 'I often heard there's a great share of cute customers in the big world. And was it the way some great deceit was put over yourself, to down you after all the pampering of your delicate upbringing?'

'I WAS not so very exceptional, my understanding lady,' replied Manus. 'Just that I became the ensnared victim of that very same perfidy which brought ruin to emperors and to princes in the books of history and the classic poems.' The travelling man waved his arm as if to ward off some horrid vision that tortured him. 'The mere memory of that deceit stabs me like a glittering sword

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plunged afresh through my quivering heart.'

Mrs Falvey rose from the hearth, straightened herself slowly and looked at her visitor with dawning comprehension. 'It's a girl you're meaning, isn't it? Or should I have said a lady?' she asked almost urgently.

'One of your own sex, madam, though it grieves me anew to have to make such an admission of my own lack of perception. My only excuse is that I was then young. High-up she was, and beautiful—beautiful beyond the pen of poet to describe.'

'Maybe she was even higher than yourself, for all the grand family you came from?'

The eyes of the mendicant were fixed on the row of glistening tins along the kitchen wall as he resumed: 'The baby face of her, pink and lovely as a painted photograph. The eyes, black as the deeps of a mountain pool and the risen moon dancing silver on the treachery of its smoothness.'

'Who'd have believed that anyone could be so deceitful?'

Unaware of the woman's half-whispered comment, Manus Mulkerrin went on: 'Her hair was finer than spun-silk threads, and the colour of ripe corn when she let it career down her back. Her lips—no, I cannot tell you of their seductive treachery. But the daring of her courage, and she a finer one on the field than any horseman ever surged on the heels of a pack of yelping hounds.'

'Then I'd guess that she didn't ride side-saddle,' Ellen Falvey suggested with a knowing headshake. 'She sounds the sort would stride across the back of a racing horse, and she competing with galloping jockeys.'

For a few seconds the travelling man made no remark. He looked as if his recollection of the past had lured his thoughts far away from his surroundings. 'And I to think I had won the love of a peerless one! The voice of her, softer than the cooing of a turtle bird, and she giving me the soft whisperings, the reassuring words of love, in answer to the torrents of frenzied poetry that swelled out of the passion was in my own guileless heart.'

'Tch, tch, tch,' nodded the woman. 'And was it how she wouldn't wed with you in the heel of the hunt?'

'Do those who glory in the wounding ever try to heal the scars, my lady of understanding?' He paused until his scowl gave way to a look of self-pity. 'Tossed aside I was, like a broken play-toy, when another fancy captured her calculating whim. In the finish,

'twas a Yankee millionaire she married, and she with thirty thousand within her own legal right.'

'Wasn't that a very stiff loss on yourself, now?' The gurgling of boiling water being poured into a brown teapot punctuated the sentence. Whimsically the woman added: 'Who'd have believed the likes of yourself would have such a tragic history behind him?'

Manus Mulkerrin stiffened, for the query was not to his liking. 'Maybe it wouldn't have been so hard to believe, and you to have glimpsed me in the glory of my prime. The finest figure of a man in the three counties, riding to harriers on a charger'd mount any obstacle I faced him over. Many's the fine girl'd have liked then to career alongside myself across the hunting-field, and I always the recognised leader on the stiffest runs. Yet I chose the one that made a laughing mockery of my ill-starred devotion to her raving beauty.'

'Wasn't it badly you managed it, even though the colleges didn't knock sense into you in time? Be sitting over here now, and forget all about the one played you so false.' Mrs Falvey brought the teapot to the white-scoured table and filled an outsize cup. 'But what stray was on you that you didn't pick one of the fine slashers was making up to yourself, and you careering across the sporting world?'

The travelling man shook a tolerant head: 'Easy for those who've never been scorched in the romantic flames, or blighted by a woman's spurning, to think that the wild flowering of love is no more than a bunch of tame blooms you'd see in a tilled garden. What did I do that many thwarted men in history hadn't done before me?'

'You let your disillusionment prey on your mind, instead of consoling yourself with one would understand you?' The woman spooned a couple of eggs from a black saucepan.

'I dissipated my fine inheritance. The whisky I drank would stock ten shebeens. I'd squander a twenty-pound note on a running horse, and laugh when my racer came last. The gambling-halls lured me till my substance was consumed. Through the perfidy of a woman you see me now—cast into the four corners of the world where only those with kind hearts for the bruised and the battered still remember that charity is the greatest of all the virtues.'

He ate in silence, aware that he was being covertly watched by the woman who made a needless clatter as she scoured a cluster of

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cans. As he left the house, a silver coin was pressed into his ready palm. He sensed rather than saw the pair of wistful eyes that watched from the doorway until he turned the bend in the path which rounded the cliffs above the bay.

HALF-AN-HOUR later, Ellen Falvey was roused from her reverie by the voice of another beggar. 'They told me on the hill, ma'am,' the bedraggled woman began, 'that old Manusheen headed this way, and darkened your own door. Did the oily blackguard, for he has a smooth share of talk at the end of his tongue, call to yourself?'

'A tragic poor man called.' Mrs Falvey brought a wedge of soda-bread to the mendicant. 'The victim of a great trouble that clouded his young life, and he little more than a spoiled boy.'

'I wouldn't doubt the old villain,' the woman of the roads said with a wry smile. 'So he's still blathering stories like that?'

Ellen Falvey's glance held reproof. 'He confided to me a little of his early history, and spoke of the blight that darkened the one romance of his sheltered life.'

'Great shelter there is in the life of a cobbler's

son.' The beggarwoman paused, while a sound that was more snarl than laughter escaped her. 'Though his father was a decent poor man, with nine of them to bring up. Clever at the school Manusheen was, but too bone-lazy to mind the good job he got when he left it.'

'Envious tongues can say spiteful things,' put in Mrs Falvey.

'And glib tongues can invent grand romances. Did he tell you about the fleet of steamers his wealthy father owned on the seven seas? Or about the dusky African princess that fell mad in love with himself? But for all the gold and diamonds she offered, he wouldn't marry her, for she was a shade too dark in the skin. So she went mad with the jealousy, and threw herself into the tide. Was that the one he told you, ma'am?'

'He told me no invention about princesses,' Ellen Falvey admitted coldly.

'Well, I can tell you one story that he didn't tell you either. And he didn't tell you because he doesn't know it yet. The lawful wedded wife that he deserted over five years ago has been searching for him since. And she's going to catch up with him before the dark of this night falls. She is so, ma'am. Good evening to you now, and thanks for your kindness.'

Aquarium Thoughts

*Flickering, flexible fish
Through the water sliding,
Slipping now between the weeds,
In their shadow hiding.
Scaly-armour clad,
Sickle-shaped, then straightening,
Glassy prison-walls between,
Searching, hunting, chasing.
Mouths for ever opening,
Opening, shutting, opening.
Tails for ever waving,
Waving, steering, waving.
Resting on the stones,
Lidless eyes unsleeping,
Fins so paper-thin
Fanlike movement keeping.
All the time so soundless,
Joyous splashes wanting,
Zest for life now pointless,
Not preyed upon nor preying.*

VIOLET MORGAN.

Round the Universe in Three Hours

London's Projected Planetarium

T. S. DOUGLAS

SPACE-TRAVEL is one of the topics of the hour and a spate of books is appearing describing trips round the solar system, which many people seriously believe will become reality before the end of the century. Even if these optimistic forecasts are fulfilled, space-travel will obviously be something for people with plenty of leisure, for the shortest trips to other worlds will take months and years, while a real trip round the universe would be impossible even in a lifetime. Fortunately for the great majority interested in the wonders of the solar system, it is not necessary to wait for the construction of space-ships, or to risk the discomforts of travel in them, to make a trip through the universe. An ingenious invention makes it possible to do this in an afternoon comfortably seated in a hall on the ground.

The planetarium is a device whereby the appearance and movements of the heavenly bodies are accurately and realistically simulated on an artificial sky. It is a very clever elaboration of the orreries which fascinated our great-grandparents. In these, the models of the planets were moved mechanically in their orbits, gears making their movements reasonably correct in relation to each other. An ingenious development was made with one when the observer was put in a cage which represented the earth and travelled round the earth's orbit looking through a periscope at the sun, planets, and stars represented by lights on the walls.

The planetarium, largely invented by Dr Bauersfeld and constructed by Zeiss, was a considerable step forward from this in both realism and accuracy. Instead of the planets and stars being represented by lamps which moved, they were shown by light projected from an optical and mechanical device in the

middle of a hall with a domed roof representing the sky. Various improvements have led to an instrument of great complexity and accuracy. It looks like some of those grotesque Martian machines beloved of science-fiction writers—a long openwork telescope with a large sphere at each end studded with lenses, suspended at its centre so that it can move in many ways. These movements are interlocked so that the lights projected on to the artificial sky show the planets and stars in their correct positions and making their correct relative movements, exactly as they would be seen by an observer with a telescope.

THE planetarium, however, has many advantages over the observer in the open. The number of nights on which every heavenly body can be seen clearly in a sky without clouds is very small, especially near any large town, where smoke and dust in the atmosphere obscure the sky. Moreover, the observer, unless he is a great traveller, knows only one night sky. People in the southern hemisphere never see the sky as it is familiar to the people of Europe, and they in turn know nothing of the Southern Cross.

But most important of all, the observer must spend many hours stargazing to see the movements of the heavenly bodies and, of course, during the daytime he rarely sees anything but the sun. In the planetarium every heavenly body can be shown clearly. Normally, the stars and some of the planets are shown rather brighter than they would appear to the eye, because the viewer coming in from daylight might find correct representation a strain. No clouds spoil the eclipses in the planetarium or prevent observa-

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tion of a star rising on the horizon. In fact, to give realism, the brightness of a heavenly body is diminished as it approaches the horizon and it fades completely as it disappears behind the silhouette of houses which is represented all round the bottom of the dome.

In the latest planetaria the sky can be adjusted to represent any latitude, so that people sitting in one of the Northern capitals can see the sky as it appears in Australia, in mid-Pacific, or at the North Pole. The controlling mechanism can be set to speed up the movements of sun, moon, and stars, so that a day passes in four minutes or a year in a few seconds. To illustrate certain phenomena, such as the movement of the position of the Pole Star, it is possible to speed up the stars in their courses so that thousands of years pass in an afternoon, and it is possible to move the stars backwards as well as forwards. The looker can see the Pole Star as it will be in thousands of years, when it will no longer be near the North Pole, or be taken back two thousand years to see the star over Bethlehem when Christ was born. By simply dimming the sun during the representation of day, it is possible to see what the stars and planets are doing during the hours when in reality the sky looks blank because the sun is too bright to let other bodies be seen.

THE planetarium itself is an extremely intricate instrument, with more than a hundred projectors, a dozen electric-motors and elaborate gearing to simulate the movement of the earth itself and the apparent relative movements of the other heavenly bodies. The dome on which it projects is generally sixty to eighty feet in diameter and requires a special building to house it. The buildings are usually circular, looking something like an observatory, but, of course, without an aperture at the top of the dome. In London, which is likely to be the next city to have a planetarium, it is proposed to place it in the upper portion of the new centre block of the Science Museum at South Kensington to replace the 'temporary' building erected in 1862.

By the outbreak of the late war upwards of thirty planetaria had been constructed in Europe and in America, where private donors, like Mr Charles Hayden, provided funds. The pre-war cost of the instrument itself was

only about £15,000, but the buildings cost from £40,000 to £150,000. It is remarkable that the entertainment the planetaria provided proved so fascinating that the majority were soon paying their way. The Hayden Planetarium in New York, for instance, puts on three shows a day, with six on Saturday, and five on Sundays, and a regular change of programme. A programme may deal with eclipses, with the changing positions of the stars through the centuries, with morning and evening stars, and so on. A lecturer explains what is going on and can use a luminous pointer if necessary. A programme at the Hayden Planetarium recently was devoted to 'Weather and the Stars' and used colour in illustrating phenomena such as sunsets and the northern lights.

Wherever they have been built, planetaria have played to packed houses. In Los Angeles and Brussels, Chicago and Moscow, Philadelphia and Stockholm, it has been the same story. Spectators, young and old, were fascinated by what someone called 'the astral movies,' watching the great drama of the universe on a screen, with time speeded up to compress into an hour movements that would take a lifetime to observe in actuality. The planetarium is educational in the sense that it makes it extremely easy to understand phenomena not easily explained in words. For instance, many people remain puzzled about just why the sun is at different heights during the year, producing the seasons. The planetarium in a quarter of an hour can make this as clear as why Venus is only visible as an evening star. The viewer sees Venus circling the sun within the orbit of the earth and appreciates why it can never be seen at midnight.

HOWEVER, the educational aspect is soon forgotten, because of the extraordinary realism of the presentation. Visitors enter the twilight under the dome and look curiously at the projector with its strange heads. But soon this and the chair are forgotten as the sun sets in a glow and the stars begin to come out. Only the faint hum of motors remind them that they are not in fact sitting in the open on a perfect night, and they are gripped as powerfully as if they were watching one of Hollywood's latest productions. As the stars move before them in their courses, there is a feeling of awe at the wonders of creation and

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the sublimely ordered movements of countless bodies, each individual and yet each related to the other.

The planetarium is one of the most beautiful and ingenious inventions of the 20th century,

all the more remarkable in this material age because it provokes admiration not for its inventor but, by giving a glimpse of the Infinite, for the creator of the drama it portrays.

A Link with Agincourt

F. G. FORMAN

IN the early days of my career I became Master of a village school in Derbyshire. It was a church school and of course my job brought me into close contact with the elderly Rector, who was a keen antiquarian and deeply interested in the village history, which dates back to Domesday.

I became infected by his enthusiasm, and it was through him that I made the acquaintance of an old giant of a man, John Foster by name, who was the only surviving member of a family reputed to be the oldest in the parish. He was also the last of the old type of miner who had worked in the industry for which the village was famed through the centuries. He had attained the great age of ninety and was still reasonably active, though rather hard of hearing. He must have stood quite six and a half feet in his younger days, and his voice was a deep growl which could be likened to the pedal notes of the church organ, upon which it was one of my duties to perform. He had many tales of the old mining days, but they are outside the purpose of this narrative.

One day I accompanied the Rector on a visit to the old man, having been promised that it would be worth my while. John occupied a pre-Tudor cottage on the verge of the village-green—now, alas, greatly restricted in extent—which cottage had belonged to his family for many generations and was kept in a surprisingly good state of repair. Here he lived entirely by himself, being tended by a kindly neighbour.

We found him in his old-fashioned high-

backed chair, by the side of a good fire, the day being chilly. He was pleased to see us, and soon we were comfortably seated, chatting on matters of village interest. After a while the conversation flagged and the Rector took the opportunity to broach the subject which was the real reason for our visit.

'JOHN,' said the Rector, 'you know that my friend here, like myself, is a lover of ancient things and I feel sure that you would not mind showing him those old treasures which were handed over to you by your father shortly before he died.'

John gazed at me steadily with his rheumy eyes, until I began to feel slightly uncomfortable, before replying to the Rector's request. At last he growled in rumbling tones: 'I have your word for him, Rector, and so long as he promises me not to breathe no word to a living soul he shall see 'em. I'm very choice about 'em.'

I readily gave the required promise and the old man, rising stiffly from his chair, moved slowly across the hearth and, reaching up to the massive oak-beam over my head, withdrew from its hiding-place in a cavity along the top side of the beam a dark, slender piece of wood; it was nearly six feet in length and curved. Taking a large, clean handkerchief from his pocket, he carefully wiped the thing before handing it to me. As I took it I noticed that the Rector was observing me with an interested but slightly amused look. I knew

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at once that I was holding an old English longbow, such as our forefathers used at the Battle of Agincourt. Old John stood watching me, and when he saw that I had recognised it he gently took it from me and leaned it against the wall. Turning to the beam, he again inserted his hand and produced a small bundle of rag, which he slowly unwrapped, and then passed to me a narrow piece of metal, some inches in length. After the bow I had no difficulty in identifying it as an arrow-head, probably of the same period as the bow.

I was greatly intrigued and after restoring the arrow-head to John turned to the Rector for an explanation, which he was obviously dying to give.

'First,' he said, 'come to the back of the cottage with me,' and led the way out through the small kitchen, leaving John to reoccupy his chair.

When we got outside he called my attention to the stone sill of the window on the right-hand side of the doorway. Bending down, I examined it closely and noticed a number of deep grooves, such as one would make by rubbing some instrument to sharpen it. I straightened myself and looked inquiringly at my companion.

'Well,' he said, 'what do you make of that?'

I had to admit that I couldn't make anything of it, beyond the obvious fact that somebody had used the sill for honing.

His eyes twinkled. 'Perhaps if you were to think of what you have seen inside, it might convey something to you.'

I puzzled my brain and then, like a shot, I understood and exclaimed: 'Why, is it possible that after all these years there still remains evidence of the places where the bowmen of England sharpened their arrows in the old days?'

He nodded. 'There's not the slightest doubt of it. By their shape those grooves could not have been formed except by arrow-heads or something very similar. I know, for I have had a certain amount of experience of them. Those old cottages that were pulled down on the other side of the Green, shortly before you came, had some also. Now we'll go back to old John and I will tell you all I know of the matter.'

the Rector settled down to relate both fact and theory regarding them. The bow, he said, was without question a replica of those used at the time of Agincourt; he had verified that. The wood was Spanish yew, such as the bowmen preferred, and very probably came from those trees standing in the churchyard. If that were so, then the bow had been made by a local bowyer, just as the arrow-head might be the work of a village smith of those distant days.

Having established these points to his own satisfaction—and I must say he sounded very convincing—he went on to tell me of further discoveries which he had made. When he first came to the village, many years ago, John's father was still alive and he got to know him very well. Having gained the old miner's entire confidence, he was shown the heirlooms; but it was the Rector himself who had made the discovery about the grooves, the old man being quite ignorant as to their origin.

The Rector had frequently come across the Foster family in the church registers, but had only regarded the entries with a casual interest. Now that his antiquarian curiosity had been aroused, he set himself to trace the records of the family. The parish was fortunate in possessing a fine set of registers, going back to the days before it became compulsory for them to be kept, and he was able to obtain information as far back as the first half of the 16th century. The spelling of the surname was not constant, and changed to 'foster,' and in the earliest entries it became 'fforester.'

This seemed to him to be so important that he mentioned it to the old man, who, after meditating for a while, showed him an old parchment document which was stained and crinkled, but with its faded brown ink still legible to the expert eye. It was with some excitement that the Rector studied the crabbed writing, and he was amazed to find that he held in his hands what was virtually the title-deed of the cottage in which he sat. But it was more than that! It recorded that one, John the fforester, had fought in the Battle of Agincourt (1415) as a master bowman and by timely aid at a critical moment had saved the life of the Lord of the Manor of his native village. He was rewarded by the grant of the site of the cottage, with freehold and other privileges. The Rector knew that neither the old man nor his son could read or write, but he soon discovered that they were aware of the contents of the document. This appeared

AFTER the Rector and I had resumed our seats and John had replaced the relics,

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to prove that the information was passed by word of mouth from each generation to the next.

He gathered that the Fosters had always been men of independent character and had managed to maintain themselves on the piece of land which went with the cottage and by working in the mines. The Rector told me afterwards that the present John had saved enough money to keep him in such comfort as he required, without being beholden to anyone.

The Rector was with the elder Foster during his last illness, and had been given charge of the title-deed, to be kept in safe custody for his son. It was in his private safe, and I subsequently had the pleasure of examining it.

NOT so very long after our joint visit to the old man, John sent for the Rector and told him that he thought his time was approaching, and asked for his advice as to making a will. He had no one to succeed him and would like to leave his possessions for the benefit of the village. Eventually he

appointed the Rector and myself to be his executors and, with the exception of a small sum of money bequeathed to his housekeeper, he willed everything to a trust, to be constituted as we thought fit.

When the old man had departed, we took legal advice so as to carry out his wishes in the best possible manner, and to-day there exists the Foster Memorial Trust, with the executors and Parish Council as joint trustees. A plaque has been affixed to the cottage, giving a short account of its history, and the premises are let to ex-service tenants at a nominal rent. A fund has been established by public subscription to ensure the maintenance of the property and exemption obtained from all rates and taxes.

The bow and arrow-head are preserved in a glass-case in the cottage, and the grooves in the window-sill are protected from the weather and other possible damage by a sheet of thick glass plate, securely fixed in cement. The title-deed is kept in the safe belonging to the Parish Council.

And so the memory of Agincourt and one of its stalwarts is perpetuated in the village.

Villanelle

*Down avenues of beech and lime
Young Cupid still evades and flees—
And I with such a little time.*

*They go, the winter's snow and rime,
I hear the murmuring of bees
Down avenues of beech and lime.*

*I never did him any crime,
So why should he my poor hopes freeze,
And I with such a little time?*

*Always ahead it rings sublime,
His laughter echoes in the breeze
Down avenues of beech and lime.*

*He takes his holy rite and mime
And vanishes from those tall trees,
And I with such a little time.*

*Alone I walk and turn my rhyme,
While Cupid still evades and flees
Down avenues of beech and lime—
And I with such a little time.*

PETER LANE.



Wide Boy

W. A. TATTERSALL

'YER breakfast's ready, General!' shouted Batty from the foot of the stairs. He listened in vain for a reply, shrugged his shoulders, and hobbled goutily back to the kitchen. Presently he heard a slow step on the stairs, so he took bacon and fried bread into the dining-room. 'Dressing-gown again, General? Ye're getting slack in yer old age.'

'Keep your Scots trap shut, man,' was the growling reply.

'Oh, aye,' observed Batty, unabashed. 'Ye had a bad night, I'm thinking. C'mon, noo. Remember the army corps ye commanded. Ye're a general. An' here am I, a private an' driver-batman, telling ye how to behave.'

'It's not that, Batty,' said the General, as he stabbed irritably at the fried bread. 'I'd sleep all right if I had something to do. Who wants an old dugout from two wars ago? I've no relations anywhere near, few friends living, and no one knows who I am, anyway. For two pins I'd move from this one-eyed village.'

'Ye'd need more than two pins, mebbe,' interposed Batty.

'And that's another thing. The Chancellor takes more and gives less. All I've got now is

you, you useless Highland savage, the garden, and a few people in the village like that stupid padre, Miss What's-her-name who's always organising things, and Admiral Hapgood, five miles away, who thinks everything's useless unless it floats. That's why I don't sleep or care very much about anything. I'm bored thundering stiff!' He banged the table fiercely with his fork.

PRIVATE MCANDREW'S mind went back to the General in his heyday. He had been a good corps commander, though it had been determination, experience, and thoroughness, rather than cleverness or any particular flair for high command, which had brought him success. More than this, however, was the fact that a senior field-commander in wartime was of the elect, a household name and a national figure. He was interviewed, received everywhere with ceremony, his movements and utterances reported, and wherever he went he had a retinue of officers and servants and a fleet of staff cars to accompany him. Fifty thousand fighting-men did his bidding, and to them he was omnipotent and omniscient, a glamorous and awe-inspiring figure of medals, red tape, and

brass buttons, whose frown sent colonels trembling.

In peacetime and in civilian life a general officer, no longer on the active list, too old for further service and with another generation conducting daily affairs, found himself transformed almost overnight into a has-been and derelict. Reporters ignored him for the chance of two words from a film-star, a photograph of an obscure M.P. or a soccer centre-forward. The General had served his country faithfully and well; but he had never really accustomed himself to its astonishingly short memory.

McAndrew had known the General all this time, ever since the days in 1915 of deadening, murderous stalemate in the mud and blood of Flanders. The General had always called his batman Batty, and Batty had always called the General just whatever he chose. Batty, if he had any relations, never bothered with them. He had never married, and had seemed perfectly content to minister to the wants of the General in uniform and out of it, in peace or war, in this tiny Hampshire village year after year. He was happy at his task and knew every mood of his master. He took pride in his work, and, whilst realising its limitations and disadvantages, he reflected with great satisfaction that not many could say they knew their job as thoroughly and exactly as he, and also acknowledged their limitations.

He therefore took note of the General's feelings that morning and decided that a little encouragement was necessary. He sighed to himself and tried in vain to think of something to cheer him up. Perhaps a look round the garden would keep him contentedly occupied. Or a headline in the newspaper, when it eventually chose to arrive, might evoke anger or reminiscence, either of which was better than gloomy pessimism. They might possibly have a visitor—even Admiral Hapgood would be welcome despite his contempt for landlubberly things.

THERE was a knock on the front-door and three envelopes cascaded on to the mat.

'Here ye are, sirr,' said Batty as he smacked the letters down by the General's elbow. 'That's three more than usual. Things are looking up.'

'H'm,' said the General with a frown of satisfaction. 'What's this?' He extracted a blue letter from a blue envelope, which he noted to have been very correctly addressed:

Lieut.-General Sir Humphrey FitzKenley, K.B.E., D.S.O., M.C. 'Who the devil?' he wondered as he looked at the postmark in perplexity. He examined the address, a school in Sussex, and then the signature: Jeremy Haycock. 'Haycock? This must be my sister's grandson. Never seen him in my life. Good Lord, I never knew he was as old as that. Last heard of him in knickerbockers. Wonder what he wants.' Then he read:

'DEAR SIR HUMPHREY,

'My parents have often mentioned you to me and how you were a Corpse commander in the Great War, and I thought I would write to you because I am interested in the Great War. We are doing it in history and you ought to know a lot about it. I am very well and hope you are too. I hope to get my House 2nd XI colours this term.

'Your affectionate great-nephew,

'JEREMY.'

'Ha!' exploded the General. 'Commanded a corpse, did I?' His eyes were twinkling with pleasure, and he grinned under his white moustache. 'Damned if I won't answer that one. Eh, Batty?'

Batty, the eternal and imperturbable confidant and adviser, signified assent. Privately, he heaped blessings on the young schoolboy who had so fortuitously lifted the General from introspective depression.

The General replied to Jeremy by return of post. He wrote two pages, an unusually long letter for an old man of eighty-five, and Batty noticed his flourishing signature: Humphrey FitzKenley, Lieut.-General.

To the surprise of both men another letter arrived from Jeremy three days later. He appeared to be delighted at hearing from so distinguished a soldier, even though he was, after all, a relation. He expressed profound gratitude for the information given about the Great War, and asked for further details. What did the General mean by a war of attrition? Was it definite that the Germans started gas warfare? Who was the real victor of Jutland? And so on for three pages or more.

'Intelligent young fellow,' observed the General to Batty. 'I thought he wanted some pocket-money out of me at first, but he just seems to want letters and information. By gad, I shall have to get my memory working again, eh? Just fetch me down that despatch-box, will you, Batty? The 1915 one. Never

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mind the dust. Wonder when I last opened it.'

THE correspondence between schoolboy and general blossomed and flourished. And Jeremy could not have been more eager than his correspondent. Batty was put to unearthing folders, histories, biographies, diaries, and despatches until all hours, and more than once the two old men found themselves almost knee-deep in musty, dusty papers all over the hearthrug.

'Dammit, Batty, I could've sworn I put that map with those photographs. I remember now. I gave it to you after the second battle of the Somme. I'd just come back from old Pinky's H.Q. and I told you I shouldn't need it any more. Don't you remember, man?'

'No, sirr, I don't,' said Batty with great decision. 'I'd remind ye, General, that it's summat like forty years ago. Ye'll ha' to do without it, so there!'

'Confound you, man! I particularly wanted that sector for young Jeremy.'

Nothing was too much trouble nowadays. McAndrew noticed with pleasure how the General's health improved. He slept and ate better. His mind grew sharper under the stimulus of Jeremy's unending questions. He would spend hours looking through his diaries or poring over maps.

To his surprise and delight Jeremy asked in one of his letters if a friend of his, Tyler, could be allowed to write to the General as well. Jeremy explained that Tyler was just as interested in the Great War, especially the Army commanded by General Allenby, who had been a distant relation of Tyler's. Would the General mind writing once or twice to Tyler about that particular sector of the Western Front? Tyler would be writing himself in a day or so in any case.

'I seem to be growing into a sort of correspondence course, Batty,' said the General. 'Well, I've nothing much else to do. Fetch me that *Times History of the War*, will you? The index first. I'm a bit rusty on that sector.'

The General went out and about more. He attended one or two fêtes and gymkhanas and was even heard on one occasion to wish he could 'have a go over the sticks once more.' The vicar made him a churchwarden, and he became a much better-known figure in the village. He allowed his name to head a sub-

scription-list for new communion-plate for the village church, and laughed like a schoolboy when he was told what a profound effect this had on other would-be subscribers who might not otherwise have bothered.

'Ye're getting younger every day,' said Batty.

The General smiled, eyes twinkling.

'An' ye've been combing your moustache,' went on Batty. 'Ye haven't done that for nigh on fifteen year. What's come over ye?'

Certainly the General looked ten years younger. The villagers noted a spring in his step and said he was 'a spry old codger after all.' He developed the habit of dropping in at The Plough around about 8 o'clock on most Wednesdays for his 'weekly extravagance'; and he glowed with pleasure at the unexpected warmth of his welcome there. He had no idea people were so friendly.

But Batty wondered what would happen if Jeremy's strange thirst for knowledge should evaporate.

ONE day in June, when Batty was clearing the lunch-table, the General took a great decision. 'Batty. I'm going to visit young Jeremy.'

Batty stood motionless by the table, gazing open-mouthed at his master, the tablecloth held loosely in his gnarled hands. He was flabbergasted. The General's eyes twinkled. 'Ye mean ye're goin' to the school?' asked Batty at last.

'Yes.'

'Whish, mon, it's ten year or more since ye crossed the county boundary. Are ye daft?'

'Yes, Batty. Quite daft. Now, don't gawp at me. Find out the train for tomorrow, and to-night you must get out my best suit and overcoat, and my stick. Now, don't argue.'

It was no mean feat for an old man to journey forty miles by train to a school he had never seen before. But the General had planned the operation in detail, ensuring plenty of time at each stage of the journey so that he could rest and ask the way when necessary.

The following afternoon, then, after lunch at an hotel, the General found himself passing through the school gates and walking slowly up the road between the rugger-pitches and cricket-fields, admiring the quiet dignity of the school buildings ahead of him. He

remembered Jeremy's school house, and after one or two inquiries he made his way along Big Side, as it was called, to the house cricket-pitch, where he hoped to find his great-nephew.

A match was in progress on the pitch in question, and under a vast oak-tree there was a large chest on which were seated three or four of the batting side, and lying around were the remainder talking, chewing grasses, and fiercely criticising the match they were watching.

The General approached the tree and two of the boys vacated their places with the polite hesitancy of their kind. 'Would you like to sit down, sir?'

'Thank you, boy. I would.' He sat down slowly and carefully and mopped his brow. He placed his hat on the ground beside him, breathing heavily, but feeling very satisfied indeed with himself for having accomplished his journey at last.

For some minutes he remained happily watching the match and enjoying his anonymity. He warmed to the youthful ardour of the bowlers and the ferocious aggression of the batsmen. He smiled at the profusion of calls made by each batsman to his partner: 'Can you?', 'Yes!', 'No, get back!', 'Sorry, old boy.' He looked round the vast circle of Big Side and heaved a sigh of pleasure. Clouds were scudding across the sky at the behest of the brisk breeze which added zest to the sunny summer afternoon. Over to his left were a few boys at the nets, and in the other direction were one or two other house-matches in progress.

'HE'S got him!'

The General's attention shot back to the match nearest to him, and just in time to see the bowler make an easy breast-high catch to dismiss the more ferocious of the two batsmen.

'That's another to Haycock.'

The General turned to the scorer. 'Is that the name of the bowler, me boy?'

'Yes, sir. He's just taken his fourth wicket. Uses his head, that chap. Dead cunning.'

The boy turned away, shouting to a colleague to put the score on the board, and as he did so a small book fell out of his pocket. The General picked it up and offered it back to him. 'You're an autograph-

hunter, eh? May I have a look at your collection?'

'Yes, sir, if you like,' grinned the boy. 'It's the latest school craze.'

A quick flipping through the pages revealed the usual proportion of famous autographs to mediocrities, but the General's attention was suddenly caught by something rather familiar. Pasted on to one of the coloured pages was his own signature, neatly cut out of the original letter which had borne it. 'Who's is this?' he asked.

The scorer glanced casually at the General's pointing finger. 'Oh, that's quite a pippin, actually. Corps commander, and one of the few surviving generals from the first war. Got that off Haycock, that chap bowling. Cost me a bob, too.'

'You mean you paid Haycock a shilling for it?' queried the General, rather shocked.

'Yes. He's a real usurer. Got masses of the things and flogs them for a bob a time.'

The General goggled. 'He actually sold signatures of this general?' he gasped.

'Yes. And, what's more, he got five bob off that chap Tyler for this general's address. Rooked him, I think. I wouldn't have paid it.'

'And why did he pay it?' asked the General, wondering what further revelations were forthcoming.

'So that he could write to his general as well as Haycock, of course. Tyler was an ass, though, because by the time he began to collect this general's autographs by writing direct the value had gone down. Haycock had exploited his monopoly first, and Tyler found he couldn't get more than twopence for each one. Most of us had got it already from Haycock—at a bob a time.'

The General was thinking—and his blood-pressure was rising.

'I dunno,' resumed his young companion. 'Perhaps a bob wasn't too much, really. This general has a stack of gongs, I believe, only he doesn't put 'em all in his signature, of course. But next hols I'm going to fox young Haycock. My father knows Lord Bodicote, and I'm going to wangle some of his. If they don't make a bob a time, I'm a Dutchman.'

The General didn't notice a wicket fall and the last batsman walk out to the wicket. He was outraged. His face grew red with mortification and his brow was a thunder-cloud. To think that the signatures to all his

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letters had been sold like cabbages in a market! Jeremy Haycock must have wanted his letters solely for that reason. The General remembered the trouble he had been to, the diaries, maps, and despatches he had pored over for this boy's benefit, and now it was all wasted. All the pleasure he had had from life as a result of this correspondence was proved hollow and worthless. It was meaningless after all, a mere excuse for the commercial gain of that worthless young rip running up to bowl not thirty yards away.

'Still, Haycock certainly knows something about the first war,' observed the scorer. 'Must have pumped this brass-hat pretty thoroughly. He even argued with Mr Smith, our history master, about the German advance of 1918. Smithy's never forgiven him.'

Then the General smiled. His smile broadened. He chuckled to himself. Then he laughed outright, to the surprise of his companion. He contrasted the monotony and emptiness of his life before Jeremy started writing to him with his present pleasure in having won a niche in the life of his village, his increased freshness of mind brought about by having had to think about and remember his war experiences, and the fact that he had been taken out of himself sufficiently to embark on his journey to Jeremy's school. He was wrong in thinking that it was all hollow. He chuckled again at the jest at his own expense, and turned with a smile still hovering under his thick moustache to the scorer. 'Have you got such a thing as a sheet of paper and a pen?'

JUST at that moment the last wicket fell, but the General was too engrossed to notice. After a few minutes he looked up, returned the pen politely to its owner, and gazed around for Jeremy. He spied him lying in some long grass just the other side of the

tree, so he got up and walked slowly across. 'Jeremy Haycock?'

The boy scrambled to his feet, regarding the General with a line of puzzlement between his brows. 'Yes, sir.'

'How d'you do, Jeremy?' said the General, offering his hand. 'My name's FitzKenley.'

'FitzK . . . General FitzKenley?'

'That's right.' He noted the look of frightened uneasiness on Jeremy's face and smiled to himself. 'I've just been talking to the scorer while watching your bowling,' he resumed. 'He was telling me how much you knew about the First World War. I'm very glad to hear it.'

'Th-thank you, sir,' said Jeremy, twisting his cap nervously.

'Will you meet me at the tuck-shop after the match for tea, Jeremy? You can get a pass, can't you? I dare say you could use a good tea, eh?'

'Yes, sir. Thanks awfully, sir.'

'One other thing.' The General produced his piece of paper. 'I hear that the value of my autograph has depreciated a little.' Jeremy blushed scarlet. 'So I've tried to do something about increasing its market-value. You might get a few sixpences on those. Here you are!'

The sheet of paper which Jeremy found thrust into his hand was covered with over a dozen repetitions of the same few words:

'Boldness and exploitation are essentials for victory.'

'HUMPHREY FITZKENLEY,

'Lieut.-General,

'K.B.E., D.S.O., M.C.'

'See you in an hour or so at the tuck-shop,' said the General, beaming at the confused figure of his great-nephew. 'You young rogue!'

He walked slowly away, grinning happily, and gaily swinging his stick.

Oh, What a World

*Oh, what a world with naught to do
But just to keep on getting through,
To wake and sleep and wake again
To naught but boredom and again
To say: 'Oh, what's a world to do
But just to keep on getting through?'*

H. R. DAFFIN.

Insect Marvels of Australia

WINIFRED STIVENS

AUSTRALIA is a wild life wonderland, peopled with strange birds, animals, and insects that look as though they have just walked off a Walt Disney reel or left a Bertram Mills big top. Best-known exhibits are, of course, the platypus, koala, and kangaroo, but the lesser-known insect world has its no less remarkable wonders.

There are, for instance, the 'living fossils' of the insect world, survivals from lowly steps on the evolutionary ladder. In the early years of our world all the continents were linked together. About sixty million years ago the Australian continent separated from Asia. Early forms of animal, bird, and insect life continued to survive in Australia because the environment was gentler. Elsewhere, in Europe, Asia, and the Americas, they became extinct.

Charles Darwin was the first to apply the label 'living fossils' to two forms of Australian life—one of them was an insect, a wingless weevil. There are several species of wingless weevils in Australia and about three thousand varieties with wings, all with hard horny coats covered with spikes or knobs. Most of them are drab fellows, but the Botany Bay diamond-weevil is a handsome insect with its lilac coat and thousands of metallic green scales which gleam like diamonds.

Near relatives of the weevils, and almost as ancient, are the jewel-beetles, whose rich metallic wing-cases are so glowingly beautiful that Australian jewellers set them in gold and silver and Australian women wear them as brooches, pendants, and even necklaces. A close relative of the jewel-beetle is the gold stag-beetle, whose wing-cases gleam with shafts of green, gold, blue, and copper light.

Possibly the most beautiful of all Australian beetles which end up in brooches is the giant gold-beetle of northern Queensland. This one grows up to two inches long, and when the

first male specimens with long horns were found they brought 35s. each from collectors. Even to-day they are worth 10s.

AUSTRALIA'S ants are unique. Not only are there more species of ants down under than in any other country, but Australia also has the world's largest ants—and some of the most wonderful. The world's biggest ant is found in Queensland, and grows up to two inches in length. Old-timers in the Queensland bush will tell you blood-curdling stories of the fate of men injured and at the mercy of these ferocious bulldog-ants. Near Charters Towers, Queensland, some years ago, a stockman had both legs smashed in a fall from a horse. He had been alone, and when he was eventually found the giant bulldog-ants had picked all his bones clean. Recently some specimens of these ants were flown to America. At the other end of the scale, Australia's smallest ant is no more than one-twentyfifth of an inch long.

There are over sixty species of bulldog-ants down under, which you can divide roughly into two main classes—those that jump and those that don't. But all of them sting! Some of the jumpers can leap to a height of four inches. In a half-inch ant that is equivalent to a man doing up to forty-eight feet in a standing broad jump!

Among the strangest of Australia's ants are the honeypot-ants of Central Australia. In every colony a group of workers are used as living reservoirs to store honey; they are crammed so full that their crops swell to the size of a grape, and the stretched skin becomes transparent. The helpless living honeypots usually cling to the roof of the ant-gallery. When the workers want a feed of nectar, they stroke the distended bellies of the repletes, as they are called, and lick away the tiny milked

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drops as they appear. The reservoirs sometimes hang in the galleries for years.

Honey-pot-ants are eagerly gathered by the aborigines of the Centre. Watch a black eating one: he picks it up between forefinger and thumb, holds it to his mouth to blow off the dust, bites off the bulging crop, and crushes it like a grape. The ants are really delicious eating if you can overcome the first feeling of revulsion.

HIGH up on the Australian list of wonder ants are the gardeners. These ants chop leaves into tiny pieces, which they spread on the floors of their underground galleries. When the leaves decay, they use what is left as a humus on which to grow a fungus that has tiny cabbage-like heads. These heads feed the ant colony. When the queen founds a new colony she carts a sprig of the fungus along with her.

The harvester-ants do not grow anything, but stock their nests with grass seeds. As many as a thousand nests have been counted in one acre. If you dig up one of these nests you will find it crammed with seeds of pasture grasses and grain; the average quantity is round about a pound.

Besides agricultural ants, there are also pastoral ants. These ants milk aphids of the sap they suck from plants. They milk the unresisting aphids by stroking them with their antennae. Some species are so advanced that they have even domesticated the aphids, carrying them off to underground burrows, or, in other cases, building barns over them on the plant-stem so that they cannot escape.

High also in the oddity stakes in the ant world are the colonies of tiny red ants, which dig their galleries in the fleshy stems of myrmecodia, the ant-house plant. This ugly brown tuber grows on trees, and is nothing remarkable to look at: rap it with a stick, however, and thousands of angry red ants swarm out. This is one of those queer partnerships in nature that is not yet fully understood by entomologists. On exactly the other side of the picture are the tiny insects—and even caterpillars and frogs—that live in ants' nests. One of these insects is a wingless silverfish that steals its food from its hosts, waiting in ambush in the galleries to dash out and snatch it from the worker-ant's jaws. Another is a parasitic mite that fastens on to an ant—sometimes three or four on to the one! One

species of Australian frog always makes its home in bulldog-ants' nests—a strange choice when you recall the stings. The Queensland moth-butterfly, in the caterpillar and chrysalis stages, lives in the nests of the bad-tempered little greentree-ants; the caterpillar, a most unpleasant guest, preys on the larvæ of its hosts; its tough skin resists bites and stings.

In the Northern Territory of Australia are the famous magnetic anthills. These citadels, built by tireless little white ants, often reach up to twenty feet in height. Roughly oval at their bases, they almost always point north and south—no one yet knows why with certainty.

QUITE a few British Tommies and American G.I.s when stationed in Australia were startled on the first few occasions when a piece of brown stem seemed to detach itself from a shrub and whirr away noisily like a mechanical toy. This was one of the stick-insects, so well provided with camouflage by nature that you can hardly pick them out from their surroundings. Some of the green stick-insects in Australia's north are twelve inches long. Not all of them have wings: those that look like a piece of dry stick have not any. Even when they turn themselves into walking-sticks, they do it so deliberately, and with so many long rests between steps, that you, and their enemies, could easily miss them. They make me think of nothing so much as a Walt-Disney-animated stick in cartoon.

Equally well camouflaged are the leaf-insects. One of them, the spiny green species, looks like a sprig of holly. The broad spiny legs resemble the leaves, and its body the stem.

The fire-beetle of Australia outdoes any fire-walker. You'll probably scoff at what I am about to tell you, but it has been verified by leading entomologists, among them the Australian Museum's expert, Kenneth C. McKeown. The fire-beetle flies into campfires and unconcernedly goes for a stroll over the coals and hot ashes. At Alma Den, near Chillagoe in Queensland, it makes its homes in the limekilns. Up there, they call it the slag-beetle. One sceptic got all the painful proof he wanted on one occasion. He was peering into the flames and mouthing his unbelief when a beetle flew from the fire into his eye. The eye was badly burned by the hot beetle.

In Queensland again, and also in Papua,

MOONLIGHT HATH CHARMS

are butterflies as large as small bats. They fly so high that bug-hunters cannot capture them in nets, and have to bring them down with shotguns. That was how the first one was captured some years before the War with a charge of dust-shot fired by a member of a scientific expedition to Papua, sponsored by one of the Rothschilds. Typical females of the Hercules-moth measure up to eleven inches across the wing-tips. An outsize one taken at Innisfail, Queensland, measured fourteen inches. The colour of the moth is light to reddish brown. The female is larger than the male and has wider wings. She needs them, because she has to hump her egg-heavy body two hundred feet, or even higher, in the air to lay her eggs on the tender top leaves of satinwood trees.

The native bees of Australia maintain the continent's penchant for being different: they have no stings, thus anticipating by many

millions of years the attempts of American and European apiarists to breed a stingless bee. They are much smaller than the Italian bee, approximating to the size of a housefly. Their honey is very good, with a rare flavour, and once used to be exported to the tables of French gourmands and sold at up to 3s. a pound.

In any mention of Australian oddities among insects, a prominent place should go to the little whistling-moth. As a musician it is a cut above the bee, whose hum is produced by a rapid beating of wings; the whistling-moth is a true musician and produces its notes on two keyboards, which it bears on its wings. The keyboards consist of corrugated plates. The insect draws its spiny foreleg across the plate much in the way that a violinist draws his bow, and brings forth strange but not untuneful whistling notes. A lot of fiddlers have done worse.

Moonlight Hath Charms

H. J. CAMPBELL

IN spite of the miracles of modern science that surround us at the present time many farmers and other country people have a mental link with Tiberius, Emperor of ancient Rome—for Tiberius always had his hair cut at the turn of the moon to prevent baldness, and we have a superstition that one should sow seeds and shear sheep at the new moon. Moon-lore such as this has lasted for centuries.

Even now, few scientists would be dogmatic about the moon's effects on terrestrial affairs. In the sphere of agriculture several carefully controlled experiments have been carried out, and while a résumé of the results does not affirm a lunar influence on plants, yet it cannot emphatically deny it. The same is true in other fields.

Not long ago marine biologists were intrigued by the claims of Red Sea fishermen that sea-urchins are always gathered at full moon because only then are they heavy with roes. Since such a phenomenon was not known to occur elsewhere, the biologists journeyed to the Red Sea and studied the sea-urchins. They found that the fishermen were correct.

Again, there is a sea-snail which opens and closes its mouth in rhythm with the moon's cycles. Thinking that tidal movements might be the cause, scientists placed some of the snails in a still-water aquarium. Here, too, the sea-snails lay with open mouths only while the moon shone fully.

Another marine example is the brown worm, Nereis. This creature only appears on the

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surface of the sea on the day after, the day before, or the actual day of the moon's last quarter, to abandon itself to a kind of nuptial dance.

IN the human species, scientists have drawn attention to the remarkable coincidence of the glandular cycle with the moon's trajectory around the earth. This long ago gave rise to the idea that women were slaves of the moon, and accounts for the Greek belief that the moon was a maiden goddess.

Such ideas may seem trivial and primitive, but it is to the credit of modern science that serious attempts are being made to explain them. As long ago as 1890 Professor Musset in the Faculty of Science at Grenoble claimed that he had carried out experiments which showed that moonlight has an attractive influence on plants. That the sun did this was well known, yet although moonlight is 300,000 times weaker than sunlight it still had a measurable attraction. Compared with heliotropism—attraction by the sun—the moon's action was called selenotropism.

As recently as 1942 an experiment was designed to show whether or not lunar phases controlled the fall of pine-needles. Branches were cut at the periods of the new moon and the full moon. These were kept in a ventilated, lightproof cave. The investigators claimed that only the water content, which varies from season to season, influences the more or less rapid fall of the needles. But another school believes that the water content might well be moon-controlled, like the tides. There is certainly a popular belief that pine brooms should only be made at favourable moon phases to avoid dropping needles.

In 1937 Von Jaeger, a German agriculturist, said that experiments showed that the best time to plant vegetables like cabbages and tomatoes, which bear their produce above-ground, was while the moon was waxing. On the other hand, he found that vegetables such as the potato with underground produce were favoured by waning moon sowing.

Professor Azzi of Rome claims that lunar phases manifestly influence numerous plants in a vegetative or reproductive sense. His

experiments on lettuces and radishes, carried out over a long period, have shown that seeds planted at waxing moon develop vegetatively, whereas seeds planted at waning moon develop reproductively.

It is worth while remembering in this connection that plant growth takes place mainly during the night. Actual elongation figures were obtained recently, and these indicate that there is a 3 per cent increase between 9 a.m. and 9 p.m.; a 9 per cent increase from 6 a.m. to 9 a.m.; and an increase of 88 per cent between 9 p.m. and 6 a.m.

Evidence is available to show that cryptogamic or flowerless plants grow mostly as the moon waxes. With mushrooms the harvest is most abundant at about the eighth day of the lunar cycle. Since mushrooms take four to six days to develop, the formation of the nutritive principles corresponds with the first days of the lunar season.

Further, biologists have shown that cell-division in the majority of plants takes place only in darkness or in attenuated light. It may well be, then, that the moon's degree of attenuated sunlight has some influence on cellular proliferation. It has been claimed that moonlight contains certain radiations that are different from those in the sun's spectrum. On the other hand, moonlight has been compared spectroscopically with sunlight reflected from lava and found to be identical to it.

IT is said also that moonlight has an effect on radio waves, that it causes more rapid deterioration of marble and other substances than does sunlight, and that it produces the more speedy putrefaction of meat.

Since, basically, no one knows what light really is, whether of the sun or the moon, it would seem that more fundamental researches are needed before a full explanation of moon influence can be given. These researches are in progress both in the West and in the East, especially in the East, where radical changes in agriculture are being envisaged. Until these researches are completed moon-lore will still be magic. But a lot of people believe in this kind of magic!



Tunnel Cat

A. V. DAVIS

GEORDIE is not the only cat on Tyneside with a smooth green lawn to roll upon and a broad brick wall on which to sun himself. He is the only cat with two green lawns, two observation posts, two homes, and sixteen owners, for Geordie has joined the staff of the Tyne Tunnel and leads a double life on both sides of the river.

From his own personal hailing-stations in either Jarrow or Howden he watches the timber-boats and deep-sea tramps sailing up-river to Newcastle and the spotless new tankers sailing down-river to the North Sea. He checks the movements of cargo-liners and freighters, battleships and pleasure-steamers, trawlers, tugs, and dredgers, passing in a dawn to dusk parade.

Jealously he chatters his teeth at the yelping herring-gulls and swears at the kittiwakes and fulmars gliding overhead.

When sea-mists shroud the river he stays inside the mushroom-domed Access Building and sleeps in the engineers' enclosure, safe behind railings, like a bank clerk, deaf to blandishments. At the rattling of teacups he sidles into the commissionaire's kiosk and accepts a saucer of milk and a portion of cold fried saveloy. Then comes five minutes' bliss on a comfortable lap, purring loudly and

kneading the serviceable serge trousers of the man on duty.

In the Tyne Tunnel no tickets are issued, no fees collected, but someone is always in attendance to operate the lifts and shout 'Hadaway! Gan on your monkey tricks!' to children playing on the escalators. And the Tyne Improvement guardians are only too ready to share their bit of bait with a cat who minds his manners and keeps his claws in velvet gloves.

GEORDIE knows better than to get in the way of the hurrying boots when the five o'clock whistles blow and the men in cloth caps and mufflers pour out of the ship-repair-yard gate. The Tunnel has been in use for more than a year, open day and night, and there is no longer a fight to climb on the ferry-boat, but the men still run full-tilt towards the river. If Cup Final tickets were on sale, they could not move faster.

On the Howden side young lassies from the ropeworks swagger past, in dungarees and headscarves, arms linked, singing lustily. They have no time for cats. They are eager to pull the curling-pins from their hair and get down to the real business of the day.

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'Watcher, hinney! Gannin ower?' shouts a youth from the waggon-works, brushing a sleek black tail.

When the first rush has slackened, Geordie takes up position near the descending escalator. An appealing look, an insistent mew, and the canny cat is whisked inside a raincoat pocket. He is afraid to set foot on those dangerous folding steps. He might never be the same animal again.

Ee, it's grand on the escalator! It is the longest in the world and it takes nearly a minute to ride from top to bottom. The speed is controlled by the rate of interruption of light to a photo-electric cell, thus ensuring rapid movement at peak-hours. In fact, it did not take the Tyneside children long to discover that by waving hands in front of the magic eye they could send the stairs surging forward.

Some of the travellers balance bicycles, some are engrossed in the *Racing Specialist*, but all are elated by the bonny green tiles and brilliant steel-plating and long snakes of cathode-lighting. And then, at the end of the corridor under the river, another celestial staircase delivers them not into Paradise—but into the murk and meanness outside.

IN the days of the ferry-boat, Geordie lived a solitary existence on the Howden side, an unwanted stray, driven out of the plastics factory, kicked from the china-clay warehouse. He dropped in occasionally at the Ex-Service Men's Club at Willington Quay and sometimes shared a kipper with the grey tabby at Jack Hopper's fruit-shop. On wet foggy nights he used to curl up inside the corrugated-iron bus-shelter—'Q here for Wallsend'—an inviting place but seldom unoccupied.

To-day, the horizon is twice as wide. The whole glorious weed-grown wilderness of Jarrow is his playground. He can leap through broken windows into empty houses. He can wander round the smoke-blackened brick church, the gas-holders, the oil storage-tanks, and the desolate flats of Jarrow Slake. He can squeeze inside shops that have been boarded up for twenty years, grim reminders of the Great Depression when order-books were empty and the shipyards silent.

Geordie's circle of acquaintances has doubled in number. He is teased and tickled by caulkers, riveters, drillers, and joiners on

both sides of the river. He is free to wander at will through forests of tower-cranes, swan-necks, hammer-heads, and giant cantilevers. He can crawl under the keel-blocks of hulls in the building-berths, dodging sparks from welders' electrodes and chasing the common shipyard cats that live domestic lives in the fabrication-sheds.

Little girls with lilting Tyneside voices are always eager to tuck an accommodating cat into a doll's pram. Three-year-old toddlers dressed as officers in the Merchant Navy can always do with a galley cat to add a touch of verisimilitude to a game of shipwrecks.

At night he investigates the river-banks of Northumberland and County Durham, prowling round ships tied up for refit, fascinated by the lights distorted in the inky water. Ears pricked, he listens to the splash of oars as a maintenance party goes ashore.

IN spite of a long seafaring ancestry, Geordie has made only one voyage himself. As a kitten, he tried a short run on a flat-iron collier taking coal to London, but it was no life for a fastidious cat with a white bib and four white boots.

To-day, when Geordie craves to feel the thrill of terra-infirma under his paws, he has only to board the ferry-boat. It still runs for the convenience of cars, lorries, and horse-drawn vehicles, and a long queue there always is, too. It will continue in service until the underwater dual carriageway is built, by-passing Newcastle and completing the Tunnel project. Below in the engine-room it is snug and cosy, even in the rawest weather, apart from the thumping of the pistons and the pungent smell of oil.

EVERY morning, Geordie paces the neat-clipped lawn, feeling which way the wind is blowing. The day's adventures lie before him. Up river? Down river? Left Bank? Right Bank? It makes no difference. He heads into the wind and avoids getting his fur ruffled. But he is never happy unless he makes at least one trip along the concrete cylinder, eighty-five feet below the surface, deep under the mud of the river-bed.

Wherever Geordie goes he is fed and fêted. He is the Tunnel cat, a famous cat, admired by all. Has he not had his picture in the paper, cleaning an ear with a moistened paw,

RAILWAY TRAGEDIES

seated in the kiosk on a knitted cushion with the Royal Family calendar in the background?

One of the electricians carries in his wallet a cutting which says in black and white—

quoting an exasperated Commissionaire—
'The Tyne cat has more sense than some of the people who use the Tunnel.'

With such a testimonial, Geordie can venture anywhere.

Railway Tragedies

MAURICE CAILLARD

CALLOUS though it may seem to say it, it is an undeniable fact that sacrifice of life and money has been a necessary prelude to significant improvements in railway precautions for the safety of the travelling public. The four disasters described below were the direct cause of drastic reforms in general organisation and equipment. The accident at Abbots Ripton in Huntingdonshire brought about a new and more secure system of signalling throughout the kingdom; the calamity at Salisbury changed the policy of the London & South-Western Railway in regard to the size and weight of express locomotives and of the rails themselves; the catastrophe at Shrewsbury resulted in an entirely new layout of the yard and signals there and the building of the present fine station; after the Grantham disaster the curve to the Nottingham branch was straightened, and signals were re-sited and altered.

I WONDER how many of the thousands of passengers who have travelled to Scotland by the east coast route have noticed the signals on the old Great Northern trunk-line between King's Cross and York? It must be remembered that the actual permanent way belonging to the Company stopped dead 'in a field' a little north of Shaftholme Junction on the London side of York. The upkeep of the line, the permanent way, and the signalling system were under the Engineering Depart-

ment of the North-Eastern Railway from that point to Berwick upon Tweed; from thence to Waverley the North British Railway was responsible.

On the 21st of January 1876 a fierce blizzard was raging. A heavy goods-train going south was halted owing to engine failure just before the distant signal at Abbots Ripton. The signalman in the Abbots Ripton box quite rightly threw over his lever and put the signal to danger—that is, at right angles to the post. But the arm, or 'board,' in railway parlance, was of an old-fashioned type and worked in a slot. The lever and telltale in the box showed everything apparently normal and correct; but snow driven at gale force worked into the slot, froze as it drove, and gradually forced the board down to the safety position. The wire connecting with the box was out of gear and could not function. Unaware of this, the signalman was quite happy, thinking that any train following the broken-down goods would be halted at the proper and safe distance.

Suddenly, above the howling of the gale, he heard a crash. The driver of another heavy goods-train following the first, just discerning the distant signal at safety through the blinding blanket of snow, ploughed steadily on and collided violently with the rear of the first train. The warning red light on the rear of the guard's brake was seen too late to enable the second train to pull up. In heavy goods-trains there is generally no continuous brake, and the only one functioning was that of the

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engine itself, apart from the hand-brake in the guard's van at the rear of the train. Both up and down lines were blocked. And, at the very moment of impact, the Leeds down night mail, travelling at 60 miles an hour, thundered into the wreckage. Fourteen people lost their lives, and a man who had worked at the clearance of the line and the rescue of the unfortunate passengers told me that the memory of that ghastly night of blizzard and death was as vivid to him after thirty-two years—I heard the story in 1908—as if it had happened yesterday.

After the disaster the Engineering Department invented a new type of signal in which the arm is entirely separate from the signal-post and is carried on a steel bar which juts out at right angles from the post itself. Very clearly visible from the footplate, it no longer fitted into a slot, and, as far as anything can be, it is impervious to snow and gale. The principle of the board working clear of the post was adopted throughout the Great Northern Railway system and was copied, with modification, by the other main lines.

THE years 1906 and 1907 were notorious for the occurrence of three major accidents, all accompanied by loss of life. The lines concerned were the London & South-Western at Salisbury, the London & North-Western at Shrewsbury, and the Great Northern at Grantham.

Salisbury was an unusual calamity in British railway history. The city is on the main trunk-line from Plymouth and the west to Waterloo and was one of the most important stations on the system in those days. Through it thundered the expresses bound for Devon and Cornwall, and also the Plymouth boat-trains carrying passengers to and from the big liners sailing to many parts of the world. Americans preferred disembarking at Plymouth to landing at Liverpool, and the London & South-Western Company had not then enlarged and modernised the docks at Southampton.

Now the Americans always proudly maintained that their great express-trains were the fastest in the world. Great Britain never allowed this claim, and Paddington, Euston, and King's Cross were ready at any moment to prove that the timing of 'The Flying Dutchman,' 'The Zulu,' 'The Wild Irishman,' and 'The Flying Scotsman' were equal or superior to anything that the trunk railroads of America

could show. But Waterloo and the old South-Western system never pretended to compete with the northern lines for speed, nor for the matter of that was their permanent way originally built for fast or heavy traffic. To 'improve' a line to enable it to carry this burden when not designed for it is said to be difficult, if not impossible. Hence the comparatively low speeds of the expresses on the London Chatham, & Dover, the South-Eastern, the London, Brighton & South Coast, and the London & South-Western Railways. Furthermore, the South-Western locomotive engineers at Bishopstoke—now for many years renamed Eastleigh—never attempted to build engines which would compete on equal terms with the giants of Swindon and the north. The standard 4-4-0 South-Western machine of those days was able to meet all calls upon it at moderate speeds, and the Company owned excellent easy-running passenger bogie rolling-stock. The Superintendent of the line, Henry Holmes, told me in 1908 that the South-Western owned more bogie carriages than any company in Britain, and he was probably correct.

To return to the momentous accident at Salisbury. The story goes that one day in the summer of 1906 two Americans crossing to Plymouth had an argument as to whether the express timing between the docks and Waterloo could outdo the northern lines. On landing, one of them walked up to the driver of the boat-express and offered him a heavy bribe to beat all records on the run to London. It was said that the driver accepted the money, but, as both he and the fireman were killed, the rumour was never substantiated. Be that as it may, in the early morning of 1st July a major disaster overtook this train.

The running directions for the road gave a warning that when taking the curve at Salisbury station all trains should reduce to twenty miles an hour. The driver ignored this and took it some said at sixty, others at eighty miles an hour. The locomotive, a comparatively light-built 4-4-0, left the curve, and the train was completely wrecked. Twenty-eight lives were lost. Putting aside all sensational rumours, the cause of the catastrophe was easily explained. The curve was acknowledged to be dangerous if rounded too fast and the running directions were definite. For some reason best known to the unfortunate enginemen the bend was taken at an unauthorised and fatal speed. From that date

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onwards Eastleigh began to build larger and heavier engines for their fast trains and the Engineering Department to use heavier rails and to look carefully into the reconstruction of their permanent way.

SHREWSBURY is an important junction on the west coast line to the north, where the Great Western Railway, running from Bristol, the Severn Tunnel, and Hereford, and the Cambrian system, to Welshpool and the Principality, join with the North-Western main line. The station was situated on a curve, and it was rumoured in those days that express drivers did not find it easy to pick up their signals at night or in thick weather, as their field of vision was restricted by the old-fashioned layout of the road. The station itself was small, and it was hinted that the home and distant signals at Crewe Bank were too close to the actual junction.

On the foggy night of 15th October 1907 the 1.20 a.m. London & North-Western express from Crewe to Shrewsbury, instead of being pulled up at Crewe Bank signal-box, to the alarm of the signalman ran through not only the Crewe Bank signals but also the junction signals at the entrance to the station. She was derailed at a crossing with the loss of eighteen lives.

An official inquiry was held into the cause of the calamity. Various theories were put forward as to why the driver ran through two sets of signals, especially as the train was due to stop at Shrewsbury station. However, the accident was as inexplicable as that on the Great Northern at Grantham had been in the previous year. Fantastic explanations were seriously considered in both cases; but opinion in the railway world was probably very near the truth about Shrewsbury. It was thought that the engine fire had been giving trouble; that both driver and fireman were gazing into the firebox and, becoming temporarily blinded, had lost their bearings and were closer to the junction than they realised. The speed at which the train passed Crewe Bank supported this theory. The brakes of the locomotive were hard on, and it seems as if the driver had seen his peril too late. Both he and the fireman were killed.

To this day the Cambrian, Great-Western, and North-Western lines converge at Shrewsbury, but a complete replanning and rebuilding of the station, of the permanent way,

and of the signalling system was taken in hand after the crash, and the present fine yard and junction are the result.

THE Grantham disaster on 19th September 1906 was witnessed by a large number of people on the platform. Grantham, 105 miles from King's Cross, was usually the first stop for north-bound expresses, although some ran through to Doncaster, to York, to Newcastle, even to Edinburgh. A Leeds express, scheduled to stop at Grantham in the early afternoon, approached on time, but the signalman noticed to his surprise that she passed his box at an unusually high speed. To the horror of the station staff and the waiting passengers she roared through Grantham at sixty miles an hour against all the signals. Immediately after a terrific crash was heard.

The superintendent of the line, who happened to be on the platform at the time, told me afterwards that he would never forget the horror of that moment. The road was open to the Nottingham branch, which was then on a big curve; the engine was seen to take it, but the tender left the rails, hit the parapet of the bridge, and the whole train was wrecked with the loss of fifteen lives. Both driver and fireman were killed. The brakes were not on. Among the unsatisfactory explanations of the mystery put forward was the allegation that, as the engine flashed through the station, two men, some said three, were seen struggling on the footplate. This was never proved. It was also suggested that the driver had had a fit and had fallen across the brake-handle; that his memory had failed and he had imagined he was through to Doncaster; that he had suddenly gone mad—and that in all these cases the fireman was struggling to get at the regulator and brake. The surmise that an unauthorised person was on the footplate was dismissed as being very unlikely.

Not long after this disaster I had the mournful duty of examining the personal relics—novels, some half-burnt, begrimed with dust, ladies' handbags, broken and torn umbrellas, pipes, and flotsam and jetsam of all kinds. Nothing could have given a more vivid picture of the instant change of the ill-fated travellers from a comfortable security, with friends awaiting them at the end of a normal journey, to a sudden and violent death.

Peat-Fire Memories

VII.—The Supernatural

KENNETH MACDONALD

NEARLY every village in the Isles has its seer, and most Highland people are psychic and see things. As children we all believed in ghosts and feared them so much that we were afraid to go any further than next door at night.

My mother often told me when I went out at night to be sure to keep to the side of the road in case I would meet a nocturnal funeral. These funerals always moved along the crown or middle of the road.

There are many instances of men meeting spirit funerals at night. To them there appeared no difference between such a funeral and any other funeral, except that it was night-time. Indeed, bodies arriving by the boat had to be transported home by night, and it was therefore difficult to recognise any difference between a real funeral and a spirit one.

It is not the custom in the Isles to stand by the wayside with head uncovered when a funeral is approaching, but rather to take a turn at carrying, so helping the cortege on its way. Highland cemeteries are sometimes a long way off and every little help in carrying counts. Similarly, when a spirit funeral was met, the wayfarer took his turn as usual at carrying. It was all perfectly natural to him. He knew the people round about him and could even read the name of the deceased on the coffin-plate. He moved steadily on with measured step along with the rest. Eventually, the funeral would disappear when it came to a running stream, and the man finds himself a long way from home on a lone country road. Spirit funerals could not pass running water. Burns mentions in 'Tam o' Shanter': 'A running stream they dare na cross.' I have been out at all hours of the night on very lonely roads in the Isles and have never met

or seen anything out of the ordinary. But then I might not be psychic.

A friend of mine, a school teacher who was inclined to laugh at these things, had the following experience. One Saturday morning he and the maid were cutting peats within twenty yards of the main road leading into the village. They had been working very hard and sat down on the bank for a short rest. 'Look,' said the maid, 'at the funeral going out along the road.' Morrison looked and could see nothing. The maid gave the names of the people who were attending, and even told Morrison that he was there and named the person he had as partner.

Morrison was convinced that the girl saw something, and, if she had, he would do his utmost to upset it. Shortly afterwards an old lady died in the village and Morrison now had visions of something happening. He told his aged mother he was not going to the funeral, an unheard-of thing in a small community. His mother, of course, remonstrated with him and pointed out that there were only ten houses in the village, that the deceased was a relative, and that the whole village would be talking about his absence. There seemed to be no way out of it.

Unwillingly he decided to go, but deliberately chose a different partner to the one referred to by his maid. He chuckled to himself at the way he had upset the maid's vision, and what a tale for the ceilidh-house how he had again upset old beliefs.

The cortege left the house and wound its way slowly along the narrow road. As it came near the spot indicated by the maid, a man, who was late for the funeral, was seen approaching on the road. He met the cortege at the very spot pointed out by the maid. According to custom, he immediately took

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his turn at carrying, and, being the odd man, knocked all the others out of their partners, and Morrison found himself taking his turn with the newcomer as his partner. Morrison himself related the story to me.

Another time Morrison was coming home from town after midnight with the local farmer's son. They had a horse and trap with them. The night was fine and the moon was full when they parted where the two roads branched off like a 'Y.' Morrison had to go one way and the farmer's son with the trap the other. After walking about a hundred yards Morrison looked across the meadow and saw the trap racing at a very fast pace down the road. He noticed also a light, like a cyclist ahead of the trap.

A few days elapsed before Morrison met the farmer again. He asked him if he had got home safely, and then said: 'By the way, what was that other light going down ahead of you?' 'Did you see that light?' replied the other in surprise. Morrison nodded that he did. 'Well,' continued Willie, 'I whipped up the horse as fast as he could go and I could not overtake that light one inch, and instead of turning in towards our own farm it continued on to my sister's. I lost it among the farm buildings. I woke everyone up and asked if any of the servants were out, but they told me everybody had gone to bed.' The following week Morrison's sister's husband was drowned in the harbour, and it was in the trap that the body was brought home.

BARKING dogs or crowing cocks at night, dreams of white horses or boats sailing on the land, were all omens of death. To see a person glowing as if covered with phosphorus was also a sure sign of death.

A very reliable friend was telling me she was coming out of the weekly meeting in the local mission-house when she saw the man in front of her all aglow with phosphorus. She began to brush down his jacket with her hand and asked where he had been sitting or whether he had been working with fish. He could see no phosphorus on himself and asked her if she was really seeing it. She assured him that she was. 'Ah well,' he replied, 'I am not long for this world.' He was drowned within a week.

Personally, I have never seen or heard anything appertaining to the supernatural, but I have had one or two interesting experiences.

I was coming home from town one dark night. As I climbed Oliver's Brae I kicked a small parcel on the road. I could see sufficient in the darkness to tell me it was cloth of some kind, and I concluded it was a linen towel.

Although it was late, my mother was still up and waiting for me. I showed her the parcel I had found. On unwrapping it, we got the shock of our lives to discover a long white garment, which turned out to be a shroud. But what was to be done with it? My mother would not hear of it being left in the house all night and asked me to put it in the barn until the morning. I did not mind carrying the thing as long as I did not know what it was, but now that I knew, it was a different story. Having been brought up in an atmosphere of ghosts and spirit funerals, I did not find the task just to my liking. However, I dare not show any signs of fear in the presence of my mother, so off I went. The thought of going into a dark barn at any time was bad enough, what with the heavy breathing of the cow and other eerie noises and the glowing of cats' eyes in the darkness, but to face these conditions with a dead man's shroud under your arm was terrifying.

Fortunately the barn was attached to the house and I had not far to go. One pane in the barn window was hinged to let the hens in and out, and by good luck it was open. There was only one thing to do. I threw the shroud in through the window and ran back to the house-door, whistling bravely as if nothing had happened.

We were aware, of course, that such a thing would soon be missed, but then we had heard of no death in the near-by villages. Next morning we saw a gig approaching and going towards the town. The driver and another man sat in front, and we knew by their dress and sad appearance that they were on some death mission. My mother stopped the gig and asked the men if they had lost something. They told us that they had taken the coffin home the night before and that the shroud, which was lying on the bottom of the gig, must have fallen out while they were climbing the brae. When the news got around that I had found a shroud on the road, I was asked all kinds of questions. 'Did I not feel anything strange about myself?', 'Did I not feel an uncanny weight on my hands or shoulders?', and so on. The questioners seemed disappointed when I told them that I felt nothing unusual, but they were con-

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vinced that something should have happened to me, to indicate that I was to handle a dead man's shroud.

Perhaps I may be allowed to digress for a moment while on the subject of coffins to tell the story of the village joiner in one of our remote villages who used to provide all the local coffins. Often they were made from crudely-sawn planks. The workshop was the local parliament, and particularly when a coffin was being made. The conversation as a rule was about the deceased, but there was at times light, flippancy talk as well.

On the occasion I am recalling the joiner could not get the sides and the end to come together as well as he wished. There was quite a gap in the joint. 'Ach,' commented one of the spectators, 'isn't it good enough, Neil?' Neil adjusted his glasses on the point of his nose, looked at the man, and replied: 'Yes, good enough for you, perhaps, but it is not you who is going to pass the winter in it.'

FAIRIES were believed in by some; others were sceptical; and to-day few people believe in fairies at all. There was one woman in my native village who saw fairies daily and conversed with them. She knew them by name—Chonachag Popar, Labruchan, etc. When she was young she had been isolated to a small shieling on Cnoc Dubhaig, owing to a fever. Like most other hills and knolls in

Lewis, it was a fairy abode, and Mor came under the influence of the little people. They played all kinds of tricks on her. She had a pin-cushion behind the door, but it was of no avail.

I went into the house next door one day to pick up a friend who was going fishing with me. He was shaving at the time. Mor also came in and at once referred to these rascals who had followed her in. She got my friend to brandish his razor behind her head in order to scare them away. On another occasion, she got one of the villagers to fire his shotgun over her shoulder. Nevertheless, the 'rascals' helped her at times. When she went to the peat-bank for a creel of peats, they always helped her to get the creel on her back.

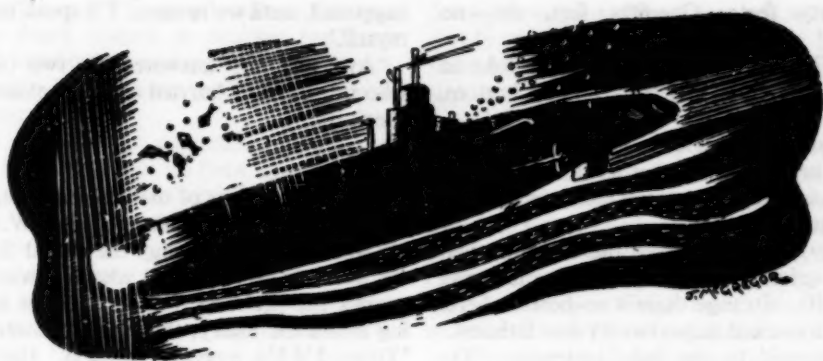
Mothers laid the tongs across the cradle when they went out in order to keep the little folk away. During my mother's time one baby at least was carried off by the *Daoine Sìth* or Men of Peace; a changeling was left in its place. I have known the man for many years. His mother had gone out to put some clothes on the bleaching-green and saw on returning that her baby had disappeared and that a baby with a wizened old face had been left in its place. The elders or wise men of the village were consulted, and they advised that the changeling should be placed under an umbrella on the highway where three roads met. This was done, and the proper baby was restored to its mother.

Summer Scents

*Summer scents, like little lanes
Winding through the drowsy days,
Take one back again in dreams
Down remembered right of ways;
Drawn by sweet, familiar signs,
New-cut grass and hawthorn foam,
Bursting roses, beds of pinks,
And the honied limes of home.*

*Into gardens, into fields,
Into woodlands deep in fern,
Following where memory leads,
Happily the thoughts return,
Till at last upon the air
Autumn bonfires, bittersweet,
Dim the summer fragrances,
Halting fancy's wandering feet.*

ELIZABETH FLEMING.



Barro Deep

SKIPPER

H. M. Submarine *Stubborn* was cruising submerged at fifteen fathoms in mid-Channel. It was late afternoon and for the past two hours there had been no contact with the anti-submarine vessel above, which had been stalking the *Stubborn* during the two-day exercise held for the benefit of anti-submarine crews.

Aboard *Stubborn*, a 1500-ton 'S' class submarine and one of the latest, the crew were at diving-stations. The Officer of the Watch stood behind the horizontal rudder-operators watching the depth-gauges. The only sound was the steady hum of the electric-motors.

In the control-room the Captain and the Sub-Lieutenant Navigator were bending over the chart. Presently the Captain spoke. 'Right, Pilot, we'll sit on the bottom here.' He indicated a position on the chart with a pencil. 'Have you a fix on our present position?'

'Yes, sir,' answered the Navigator. 'We are fifty miles south-west of Portland and ten miles west-by-north of the Casquets, dead-reckoning. That puts us ten miles north of the Barro Deep, with the sea-bed at twenty-five fathoms.'

'Thank you, Pilot,' replied the Captain. 'Give my compliments to the First Lieutenant

and ask him to come to the control-room, please.'

Within a minute the Second-in-Command was at the Captain's side. 'You sent for me, sir?'

'Yes, Number One,' said the Captain. 'Prepare the ship for deep-diving. We've a couple of hours to spare before the exercise ends, and I propose to lie on the bottom and wait. Let me know as soon as you're ready.'

'Aye, aye, sir,' answered the First Lieutenant.

The Captain turned and studied the chart again whilst the Navigator checked and re-checked the ship's position.

Presently the First Lieutenant's voice announced: 'Ship's ready for deep-diving, sir.'

'Very good, Number One. Flood all tanks and grope down to one-fifty feet,' ordered the Captain.

The Petty Officers operating the horizontal rudders spun their wheels. There was a slight rise in the hum of the motors as speed was increased to push the submarine downwards. The depth-gauges showed the change of depth as the ship slowly groped down.

The Chief Petty Officer of the Watch called out the depth at intervals to the First Lieutenant. 'One-ten feet, sir. One-twenty feet.

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One - forty feet. One-fifty feet, sir — no bottom!

The First Lieutenant turned and spoke to the Captain: 'One-fifty feet—and no bottom, sir.'

'Straighten out,' said the Captain. 'Bottom must be here. Try another ten feet.'

Back came the report: 'One-sixty feet, sir —no bottom!'

'Steady at that,' ordered the Captain, then stepped quickly to the chart-table muttering to himself: 'Strange there's no bottom here. The depth marked shows twenty-five fathoms.' Aloud he said to the Sub-Lieutenant: 'Do you suppose your dead-reckoning could be adrift, Pilot, and we are farther south than you estimate?'

At that moment there was a sudden uplifting of the bows of the submarine and she surged upwards. The horizontal-rudder operators struggled to gain control and bring her to an even trim. Then, just as suddenly, the stern lifted and the submarine dived downwards at a steep angle, throwing everyone against the bulkheads. In a matter of seconds the depth-gauges showed 300 feet, with the submarine still diving and out of control. At 350 feet there was a thud as the bows hit the sea-bed. Slowly the ship settled down to an even keel. Then with a succession of bumps she slid sideways as though down an incline, coming to rest finally with a lurching thud, still on an even keel, but with a slight list to starboard.

The Captain picked himself up from the floor of the control-room, where he had been flung on top of the Navigator. 'You all right, Sub?' he inquired, as he helped that officer to his feet.

'I think so,' answered the Navigator, passing his hand across his eyes. 'What's happened, sir?'

'I'm not sure yet,' answered the Captain, 'but I've a good—' The rest of the sentence was cut short as the First Lieutenant and the Engineer Lieutenant entered the control-room.

Seeing them, the Captain asked: 'Anyone hurt forward, Number One? Anyone in your department, Chief?' Receiving a favourable reply, he ordered: 'Carry out an immediate survey of the ship. Report to me, and hurry it up. We've got to get up out of this as soon as possible. It's dangerous to stay at this depth too long; too much pressure on the hull; she may not be able to stand it. No word yet to the crew about what may have

happened, until we're sure. I'll speak to them myself.'

'Aye, aye, sir,' answered the two officers, who immediately hurried away to make their check-up.

'SEND the Officer of the Watch to me, Sub,' ordered the Captain. The O.O.W. made his appearance, mopping the blood from a cut over his eye, received when he was flung against the periscope housing. After inquiring about the injury, the Captain continued: 'Torps, I'd like a second opinion. Have you any idea what's happened, or why?'

'No, sir, not an inkling,' answered the O.O.W., a young Torpedo-Lieutenant with not much experience in submarines, certainly with no previous experience of a situation of this kind.

'Well,' announced the Captain, 'we're on the bottom in 350 feet, on some kind of slope in the sea-bed. I expect you realise that.' The O.O.W. nodded, and the Captain went on: 'The First Lieutenant and the Chief are making a check of the ship for damage. When I receive their report I shall speak to the ship's company. I don't want to sound despondent, but I think we are in rather a tight spot. It may not be too easy getting up from this depth, even if we are undamaged. However, no word of this to anyone until I've had a chance to sort the situation out. But, meantime, pass the word to all hands not to move about more than necessary, so's not to shift the trim in any way.'

As the O.O.W. went out, the First Lieutenant and the Chief entered the wardroom. 'Well?' asked the Captain.

'The ship has been thoroughly checked, and she's making no water, sir,' reported the First Lieutenant.

'Thank heaven for that,' said the Captain. 'So it seems that we have sustained no structural damage, but are down below our safety-depth in a kind of hole in the sea-bed. It was due to the up-and-down surge of the swell caused by the sea smashing against the cliff-like side of the hole that first lifted us up, then thrust us down. The fact that we were in diving trim at the moment, and lacked buoyancy, was what went against us. We were unable to recover, and dived to the bottom like a stone. I imagine we are lying in some kind of crevasse on the side of a sloping cliff. It's only by a miracle we did not

go even deeper. The great pressure of the sea at this depth helped to cushion the bows against the bottom and reduced the impact, which at a lesser depth would have torn us wide open.

'The only known depression in the seabed in this area,' went on the Captain, 'is the Barro Deep, with a depth in its centre of more than a hundred fathoms. Although the Navigator's reckoning put us ten miles north of its edge, exceptionally strong currents, or an error in calculation, could account for our being out of our reckoning when I decided to deep-dive. However, that is all pointless now. What we've got to do is to surface again as quickly as possible. It may not be possible to blow tanks because of the extreme pressure outside at this depth. If that is so, then we cannot rise. It will be useless releasing our marker-buoy for the same reason. As we have had no contact with the surface for more than two hours, I can only assume they have lost us, and no one knows our position since we last surfaced.'

When the Captain had finished speaking, he glanced at the wardroom clock. Then turning to the First Lieutenant he said: 'All right, Number One, I'm ready to speak to the men now. Switch on the inter-com, will you, please?'

The Captain picked up the microphone, and in a clear, steady voice began to speak: 'This is the Captain speaking. I want you to know what has happened, and our position as far as we can assume it. We are resting on the bottom in 350 feet of water. Actually, we are lying on the sloping side of a depression in the sea-bed, probably the Barro Deep. It was the rise and fall of the swell in this depression that caused us first to rise, then drove us down again. Because of our extreme depth, we may not be able to blow tanks, and therefore rise. If we cannot get up of our own accord, then you may rest assured that every effort will be made to find us once we become overdue. In the meantime everyone is to carry on the ship's routine as though nothing unusual has happened. An attempt to blow tanks will be made at twenty-hundred hours—two hours from now, the time of slack water, and whilst we are waiting everyone should have a good meal. It will help to pass the time. That is all. Carry on.'

When he had ended, the Captain addressed the officers assembled in the wardroom. 'Well, that's all we can do for the present.

I suggest we have a meal now. It will help to fortify and occupy us whilst we wait. Number One, tell the Coxswain to pipe the hands to supper.'

DURING the meal in the wardroom, discussion of the ship's situation was avoided, but there was more than one discreet glance from time to time at the wardroom clock as the hands moved slowly to the appointed time. At last the Captain glanced at the watch on his wrist and checked it by the wardroom clock, then, rising from the table, said to the First Lieutenant: 'Prepare for surfacing in ten minutes, Number One, and inform me when you are ready.'

'Aye, aye, sir,' answered the First Lieutenant, and reaching for his cap got up and went out.

In the Petty Officers' Mess the Coxswain was having a quiet game of crib with the Chief Stoker Machinist when the First Lieutenant's voice came over the inter-com. 'Coxswain, pipe all hands to stand by stations for surfacing.'

Quickly the crew moved to their stations. In a matter of minutes the ship was in readiness. Not a man showed any trace of what he was thinking, for years of discipline and training had accustomed them to obey orders instantly and to control their feelings. The Submarine Service had prepared them for just this kind of emergency that might have to be faced one day.

Punctually at 20.00 hours the Captain entered the control-room and with hands clasped behind his back passed the order to the First Lieutenant to 'Blow all tanks.'

Quickly the valves were opened and the compressed air hissed into the tanks. The officers watched the gauges as the needles dropped very slowly. Half-way it was necessary to increase pressure before the tanks were finally emptied. But the depth-gauges registered no movement, and, except for a slight lifting of the stern and one or two bumps on the sea-bed, the submarine remained stationary.

The First Lieutenant turned to the Captain and said in a low voice: 'She's not going to lift, sir. Pressure outside is too great.'

'It looks like it, Number One,' said the Captain. 'Flood all tanks again. At least she has some buoyancy, and I can't risk her shifting position. Disperse the hands, Number

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One, and I want all officers in the wardroom now.'

When the officers were assembled, the Captain opened the conference by coming quickly to the point. 'Well, gentlemen, although with the greatest difficulty we are able to blow the tanks, we still cannot rise because of the pressure on the ship. To lie here and wait until we are found is dangerous. It may take days to locate us, and our air-supply will last probably seventy-two hours at the most. But many of us will be showing signs of distress before then.

'It's impossible to use our escape-apparatus at this depth, and, even if it were, the chance of anyone being picked up is remote. In my opinion, no one above has any idea of our whereabouts. Finding us is going to be a long job, and, assuming they do, there is little that can be done to raise us from this depth. So much for the debit side of our situation.

'Now for the credit side. The ship is undamaged and in good working order. We cannot rise, because in our normal position we present too great an area to the pressure of the sea. If we can reduce this area, we stand a chance of getting up. We know the ship is still buoyant by the slight rise of the stern when we blew tanks just now, which was aided by the fact that we are canted forward slightly. It was this movement of the stern that gave me an idea. We have a thousand-to-one chance of getting up, and if all goes well we can make it. I propose to take the ship up vertically, stern first. It's our only chance, and I am going to take it for the sake of us all. Here are the details.

'Shift as much weight as possible forward to the torpedo-room. The men to be spaced between the midship section and forward. Specialists to operate valves by jamming themselves alongside these stations. With all this extra weight shifted to the bows, and by blowing the stern tanks, it should act as a cantilever, causing the stern to rise. When the ship is up-and-down and everyone standing on the bulkheads, the remainder of the tanks will be blown. With a reduced surface to the pressure of the sea, the ship should rise. As soon as she is clear of the sea-bed, jettison half the torpedoes. Released from their weight, our ascent should be rapid.

'When the stern breaks surface, release the remainder of the torpedoes, at the same time partly flooding the stern tanks. This should cause the stern to swing downwards and the

bows to rise. The upward swing of the bows will be controlled by partly flooding the forward tanks. By this means we hope to get an even trim. At the same time the men will distribute themselves quickly throughout the ship and keep the trim steady until the ship has settled down again. And that, gentlemen, is my idea in theory.'

WHEN the Captain finished speaking, he sat back and looked at the others, and waited for their verdict. There was complete silence. Nobody spoke. Perhaps they all realised for the first time how slender was their chance of survival. The difference between life and death for all of them depended upon one man's theory, the Captain's, and the slightest hitch in the plan could end in complete disaster, with no second chance. There were so many things about the theory that might not work out. But there was no alternative. It was that or nothing.

At last the First Lieutenant broke the silence: 'Will you speak to the men, sir?'

'Yes, Number One,' answered the Captain. 'They may as well know the position and what we intend to do about it. Have all hands mustered in the forward torpedo-room now.' And that was the signal for the officers to leave the wardroom and make their way forward.

Before following them, the Captain reached into a drawer in the sideboard for a Prayer-book that he knew was kept there and slipped it into his pocket. In the forward torpedo-flat the crew were waiting his arrival with expectancy. That the first attempt to surface had failed they were well aware, but that did not mean that there would not be another try. But now the Captain had something to say to them, and they wanted to hear him.

As the Captain entered the flat, the Coxswain called the men to attention. 'Ship's company, attention! Off caps for the Captain.'

'All right, Coxswain, stand easy,' acknowledged the Captain, and then plunged right into explaining what he had in mind for raising the ship. 'Of course,' he made clear, 'I'll not pretend that my idea has anything more than a sporting chance of success. But so long as that chance is there we must take it. It's a case of Hobson's choice for us, anyhow. But if everyone does what is required of him, then we may succeed, and please God we shall.

'The attempt will be made at twenty-four hundred hours, that is three hours from now.

That will give us time to make our preparations and ensure that everyone understands what he must do. Well, I don't think there is any more I can say to you on this subject except to remind you of a custom of the Navy and of the gravity of the hour. Let us as Christian men join together in prayer, asking Almighty God to bless our venture and to deliver us safely from our peril.' Then, reaching into his pocket, he produced the Prayer-book and in a steady voice commenced to intone the beautiful words of the Third Collect for Evening Prayer as though he were taking Sunday Divisions in harbour. "'Lighten our darkness, we beseech thee, O Lord; and by thy great mercy defend us from all perils and dangers of this night; for the love of thy only Son, our Saviour Jesus Christ. Amen.'" Saying after me, "Our Father which art in heaven"—as the familiar words of the Lord's Prayer echoed through the silent torpedo-room, one after another of those gathered there took them up, young and old, officer and man—"Hallowed be thy Name, Thy kingdom come, Thy will be done, in earth as it is in heaven"—Roman Catholics among the men had fallen to their knees unashamed, and with heads bowed and hands clasped made their supplications to their Maker in their own way—"Give us this day our daily bread; And forgive us our trespasses, As we forgive them that trespass against us"—grizzled A.B.s and C.P.O.s, men going grey in the Service, took sidelong glances at the faces of their younger shipmates, one or two of whose faces had turned pale as the gravity of the moment struck home—"And lead us not into temptation, But deliver us from evil. For thine is the kingdom, the power, and the glory, For ever and ever. Amen.'" In the short silence at the conclusion a sob broke out from somewhere among the men. No one turned a head. The sufferer was allowed his anguish unnoticed. No one wanted to know who had broken.

Then the Captain turned to the First Lieutenant, and in a quiet voice said: 'Make all preparations according to my orders, Number One.'

'Aye, aye, sir.' The First Lieutenant saluted and, turning to the Coxswain, ordered: 'Coxswain, disperse the ship's company and muster them in the fore-castle for briefing.'

IN a matter of moments the men were mustered again and the First Lieutenant

began giving them details of the Captain's instructions. 'The heaviest men will take up position in the torpedo-room and the fore-castle; the remainder in the control-room and the wardroom. All movable gear will be shifted forward or secured where it is. At five minutes to zero-hour the ship will switch to emergency lighting, just in case of any disruption in the battery store when the ship is in the up-and-down position. As soon as the bows are clear of the sea-bed, half the torpedoes will be jettisoned. Relieved of their weight, our movement should be rapid until the stern breaks surface. We shall feel the movement no doubt, something like a bounce. Then the remainder of the torpedoes will be released and the stern tanks slowly flooded. As the ship comes nearly to an even trim, the bow tanks will be flooded to check the upward swing of the bow and all hands will quickly move through the ship to disperse their weight evenly to keep the trim steady. And remember, if we succeed, we shall have a story to tell that will thrill the world. If we fail, then no one outside will ever know what happened to us, or what drama was enacted here this night. That's all. Carry on, and good luck.'

When the First Lieutenant left the fore-castle the Coxswain and the Petty Officers took over. A coil of 1-inch jackstay wire was got from the storeroom and cut into lengths. Each length, long enough to span the width of the submarine, was rigged across the parts of the ship the men were to crowd into. They were to act as foot-ropes for some to stand on above the heads of others to stop crushing in the confined spaces.

Next, the heaviest men were sorted out and detailed, irrespective of rank, to the part of the ship they were to occupy. The specialists were to station themselves near their instruments, to be ready to take over the job of controlling the trim at the right moment.

As these preparations were being made, the Petty Officers explained to the men the drill for dispersing their weight throughout the ship the moment she came to an even trim. By the time the emergency lighting was rigged, every man was familiar with the part he had to play, and zero-hour drew near.

At 23.00 hours the First Lieutenant reported to the Captain that all was ready. After he had acknowledged, the Captain ordered that one tot of spirits be served out to all hands 'to cheer and hearten them,' and he further pledged that should they come through their

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ordeal safely and again feel the wind on their faces, all hands should have the 'best in the house' on him when next they went ashore.

AT 20.00 hours on the day the anti-submarine exercise ended, a signal was received by the C.O. of the submarine depot-ship at Portland from the escort-vessel *Wild Rose* to the effect that submarine *Stubborn* failed to surface in rendezvous area at 18.00 hours, and was therefore two hours overdue, and requesting orders to proceed with search or to return to harbour.

Back came the reply: 'To C.O. *Wild Rose* from C.O. Depot-Ship, Portland. Remain at sea and patrol from your present position, due south to the French coast. Report every hour until daylight. Reinforcements on the way.'

Immediately this signal was sent off, the C.O. of the depot-ship sent a call through to the Flag-Officer Submarines, Portsmouth. 'Report submarine *Stubborn* 2 hours overdue. Search party out. Request Operation Sub-smash to stand by immediately.'

At 23.00 hours the following signal was received by the depot-ship from *Wild Rose*: 'Echo received by Asdic at 350 feet in position 49° 30' N., 2° 30' W. (northern limit of Barro Deep). No marker-buoy visible. Could be old wreck. Signals dropped. Am standing by for daylight.'

IN the submarine all hands were resting in readiness for their supreme effort, which was not to be much longer delayed. In the wardroom the Torpedo-Lieutenant was lying in his cot, eyes closed, but not sleeping. The First Lieutenant was reclining on the settee reading. At the other end, sitting slightly forward and staring at the floor was the Sub-Lieutenant. He of all the others seemed to have taken the affair badly, as though he blamed himself that because of his navigation they were in this plight. The Chief was absent, preferring to spend his time of waiting among his machinery, the thing most close to his heart.

At the wardroom table sat the Captain writing a full report for the ship's official log-book and the Admiralty. He secretly hoped he would be able to hand it over in person.

Suddenly the silence was broken by three loud bangs outside. At once everyone in

the ship became alert, listening. Two minutes passed, and another three bangs. 'Signals,' said the Captain. 'They've stumbled on us all right, and there's nothing we can do to let them know we've heard. But at least it's a comfort to know that we are not alone, that there are friendly hands waiting above to help us when they can. Pass the word forward, Number One, that we have been located. Have all hands stand by for surfacing now.'

'Aye, aye, sir,' replied the First Lieutenant, glad that the suspense of waiting was over. Soon they'd know what their fate was to be.

As the order to stand by was piped, the men moved calmly and in order to their places. Each man's face showed confidence and quiet determination. The fact that they were no longer alone, that comrades above were waiting to strain every nerve and sinew to help them, was an added strength.

When everyone was in position, standing close up to the forward bulkheads, the Captain took his place with the others in the control-room, lying on his back on the floor with his feet braced against the forward bulk-head. Then in a loud voice he ordered: 'Switch to emergency lighting.' Receiving the affirmative, he next ordered: 'Blow stern tanks.' Slowly the stern tanks drained, but there was no movement of the stern. 'Blow main tanks,' then ordered the Captain, and, as the main and largest of the ballast-tanks slowly drained, the floor of the submarine could be felt rising, and the ship swung slowly from side to side. In eight minutes from the order to blow tanks, the stern had reached the vertical and the submarine was suspended in an up-and-down position.

Now for it, thought the Captain—will she lift? 'Blow forward tanks,' he ordered. The compressed air hissed as it drove out the water. There was a thirty seconds' wait, then a sensation of upward motion could be distinctly felt. Yes, by Jupiter, she was lifting, and with the ship's length of 300 feet she would have only 50 feet to go before the stern broke surface. Satisfied that she was clear of the bottom, the Captain gave the order: 'Release torpedoes.' Five thuds were registered as half the forward tubes emptied. Then the upward movement of the ship became more marked. In a matter of minutes the stern broke surface. The upward movement ceased, and the submarine was left gently rising and falling to the motion of the sea.

Now for the most difficult part, thought the Captain—bringing the ship to an even keel. 'Half-flood stern and forward tanks, release torpedoes,' he ordered.

As the remaining torpedoes were released, and the stern tanks began to fill, the bows suddenly swung upward with a rush. In a matter of seconds the ship had passed the horizontal and the bows broke surface in a smother of boiling foam, only to slide back beneath the sea again as the ballast-tanks filling took effect. But the next instant the submarine broke surface again, topsides first, with the sea cascading off her conning-tower and deck-casing. Then, after a lurching roll, she steadied up to remain motionless on the surface of the sea.

Inside the submarine the speed with which the bows swung upwards threw everybody into confusion. The ship was filled with shouts and cries of men falling on top of each other as they slid down the sloping decks. There had been no time to prepare for this sudden shock.

The men operating the tank-valves, realising something was wrong, had the presence of mind to close their valves before they were flung from their positions. This saved the ship from a downward plunge when the torpedo-tubes filled with water. It was this extra weight of water taken in suddenly that corrected the trim, and the ship's buoyancy forced her to the surface with a rush like a rubber ball.

When the ship was steady, the first on his feet was the Captain. He staggered forward to the torpedo-room, where he guessed most of the injured would be. Out in the gangway he met dazed men staggering about aimlessly. In the compartments some were still lying semi-conscious from concussion. In the torpedo-room more than half the occupants were suffering from concussion, cuts, and shock, for it was here that most of the violent upward rush had been felt. A quick glance round assured the Captain that most would recover. But it would be some time before they would be fit for duty.

Making his way back to the control-room, he met the First Lieutenant and shook hands with him, saying at the same time: 'Take over here, Number One, I'm going up to the bridge. Without lights we shall be in danger of being run down.' Then, ascending the ladder to the conning-tower hatch, he knocked off the clamps and threw back the hatch-

cover. Up through the open hatch he saw a clear, starry sky. A current of cold night air fanned his face. 'Thank God,' said the Captain quietly. On the bridge he looked round. The submarine lay quiet except for a slight roll. It was a calm night. Away on the port beam were the lights of a ship. There was nothing else in sight.

THE Captain descended quickly below and pressed the switches of the navigation-lights. He had noticed that the ship was back on normal lighting. Then, seeing the Sub-Lieutenant was unhurt, he sent him up to keep watch whilst he went the rounds of the ship.

In the engine-room the Chief was checking up on his machinery. In the forecabin the Coxswain and First Lieutenant were dressing cuts and bruises and treating for shock mostly everyone who had been in the torpedo-room. Those who had occupied the forecabin and control-room spaces had been more fortunate. These spaces were smaller and there had been less crowding.

When the Captain was satisfied that the more serious casualties were as comfortable as conditions allowed, he made his way back to the bridge accompanied by a signalman. On the bridge the Sub reported that their lights had been seen and that the ship to port was calling them up.

'Acknowledge,' ordered the Captain to the signalman. 'Then make a signal: "H.M. Submarine *Stubborn* reporting. Are you looking for me?"'

Back came the reply: 'H.M. Corvette *Wild Rose* to *Stubborn*. Yes, and I am glad to have found you. Do you require assistance?'

'Reply,' said the Captain: '"Yes, take me in tow. More than half of my crew are injured or suffering from shock and are not fit for duty. We are very tired."'

From *Wild Rose* came the reply: 'I understand. I shall be happy to comply with your request. Am sending a boat with a working party to assist you to secure the towing-spring.'

When the boat from *Wild Rose* came alongside, five seamen and a Petty Officer scrambled aboard. The P.O. brought the news that the corvette would edge in close at daylight and pass a five-inch towing-spring aboard.

As dawn was breaking, a signal was received from the corvette: 'Stand by for my heaving-line as I come in close to you.'

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Stubborn's Captain watched from the conning-tower as the corvette dropped down stern first. When she was about thirty feet away, a heaving-line came snaking towards them and fell neatly across the submarine's foredeck. It was immediately snatched up by one of the securing party and the towing-wire quickly hauled in and made fast. When all was ready, a signal was sent to *Wild Rose*: 'Commence towing, please.'

It was nearly daylight when *Wild Rose* took up the slack of the towing-spring. As the wire tightened, the submarine moved forward and

quickly worked up to five knots in the smooth sea. At 07.00 hours the little procession was joined by two destroyers, which took up station one on either side of the submarine, like ministering angels.

As the Captain saw these escorts he smiled to himself. Soon now it would be journey's end for himself and the fifty men below. What was waiting for him when he faced the Court of Inquiry he knew not. The only thing that concerned him now was that he, his crew, and the ship lived again, and he was devilish tired.

Cow-Dogs

CRICHTON PORTEOUS

A LOT is written about sheep-dogs; very little about cow-dogs. Nobody has yet organised a cow-dog trial. That might get them more publicity, and they deserve it, for a good cow-dog was reckoned to be worth £1 a week and its keep to any dairy-farmer, in Peakland at any rate, even before the War.

'I'd give £20 right now for even a moderately good one,' said Willie. 'I've been trying for three months, and haven't heard of anything at all.'

Willie's old dog—not a wonder, though quite useful—died just before turning-out time, of poison picked up in one of the plantings, we thought. Turning-out time, of course, is just when one needs a dog most, for the cows are loath to leave their new freedom and the abundance of sweet grass to come for milking. Willie has had to tramp miles after the cattle, and spend hours, nearly all of which a dog might have saved him.

Willie's father, who lives with him, and is over eighty, said that in all his own farming, and since his son took over, they had only had one really good dog. Some had been fair, this one alone outstanding. Most of the

pastures lie uphill, with shooting-covers obtruding, valuable for shade and shelter, though often hiding the cattle. Thus a dog must often work on its own. This dog, however, would work as well out of sight as in sight, and, dark or light, never made the common error of driving too fast downhill.

One Sunday this dog was suddenly ill, and Willie's father, not then retired, rang for the vet. He was out, but the message would be passed on at once when he returned. A little later the vet rang back and apologised for his wife's bad hearing, for he was sure that no farmer would want him to go out for a *dog* on a Sunday afternoon. Was it a cow, or a horse? 'Neither,' said the farmer. 'It's a dog as is as valuable to me as any cow in the county.' The vet came promptly, and called regularly for three weeks till the dog was fit again.

MY friend, Ted Timberlake, who is seventy-eight, also remembers only one really good cow-dog. I heard of it by chance. Ted has gone rather deaf, and, because he cannot

catch all one's replies, does not talk nearly as much as he used to, but occasionally some happening all at once sets him off, despite himself, as it were. A strange dog had invaded the yard, and I chanced to say that I wondered whose it was.

'Yon favours a dog as we once had,' said Ted. The stray was mainly black, with a white collar and white feet, rough-haired, medium-sized, sheep-dog type. 'But she were fatter, a real little puddin',' Ted explained. 'That were why, though she were a bitch, we called 'er Jumbo.'

I began to realise that Ted was in the mood. 'A good dog?'

'Never a better,' he said decidedly. 'That were a dog, that were.' He kept silent for several seconds, obviously thinking of the best proof of the animal's sagacity.

Ted had shown me before the farm where he was born and brought up. It is on the main street, and the fields, nearly all built on now, lay behind, gently rising towards the Edge. The barn and companion buildings were two fields from the house, in a small croft with a ring wall.

'Dost know,' said Ted, 'we never needed ta get cows up. When we were ready to set off, we just sent Jumbo ahead, an' when we get there, cows were allus in th' croft waitin'. She'd opened th' gate, driven 'em in, and shut it agen. An' she never missed any; allus 'ad 'em all.'

'Opened the gate?'

'Well, it were one as swung to. We didna hook it,' Ted confessed, and then chuckled. It seemed that one day the gamekeeper and a stranger came to the house, the keeper asking if the dog was about, and then explaining that he had bet his companion that he could show him a dog that would open and shut a gate. The stranger had scoffed, but he paid up all right. 'And dost know this,' said Ted, shaking his pipe-stem at me, 'if somebody else's cows got in with ours, we'd only got ta send Jumbo, an' she'd sort 'em out, an' never mek a mistake.'

By the back-door of the farmhouse was a noted well that served most of the villagers in the 'town end.' They came at all times of day with buckets and crocks. In addition, the farm sold milk, and dozens of customers brought their jugs morning and evening. 'Jumbo knew every one,' said Ted, holding his pipe with a blazing match across the bowl away from his mouth, the better to note

whether I properly realised. 'She did, every one, and would lie as quiet as owt, an' never mek no murmur. But let a tramp come in, an' by guy!' Ted began to draw on his pipe again, leaving me to imagine the rest.

A FEW minutes later, however, Ted started once more. It seems that this clever Jumbo on one occasion had several pups that Ted's father promptly buried in the midden. Jumbo, nevertheless, traced them, dug them up, carried them to a haystack, and somehow managed to bring one round. The midden's warmth had probably helped to keep the youngster alive. This feat so impressed Ted's father that he let Jumbo keep the pup, and it made a good dog, though not as intelligent as its mother.

Jumbo, apparently, was well known throughout the village, for I heard that she went regularly to the newsagent's, and to the Post Office for letters. She would carry a quart of milk safely in a can, or eggs in a can from the barn to the house. Sometimes it happened that when the men got to the barn for milking they would find that they had forgotten matches, or some other small thing. A note was tied to Jumbo's collar and off she trotted for whatever was wanted.

'We never took baggin' wi' us out in th' fields, neither,' said Ted. 'We allus sent 'er, an' she'd come wi' it in a basket as proud as a peacock. If th' day were mucky, she'd never goo into th'ouse bout wipin' 'er feet on the mat. She were a real corker.'

Few dogs get talked of as enthusiastically after half-a-century as Ted talked of this one. Yet even Jumbo had moods. She liked driving cattle, and was always ready and eager at milking-time. When the cattle were in the shippin, though, she evidently considered her duty done, for if she saw anyone getting paper to write a note: 'Off she'd goo, if one of us didna cop holt on 'er,' said Ted. 'And whenever a gun was got down from between th' rafters, off she'd goo, too, for she could never stand th' sound of a shot. But fer owt else,' continued Ted firmly, 'there was never no dog like 'er. Though ther were a chap, on th' next farm, as claimed as 'e 'ad a better. She used ta goo for th' cows, an' all, an' one mornin' she were that long, 'e thought 'e'd better goo an' see what were wrong. An' when 'e get in th' field, there she were, 'e said—walling a gap up!'

The Hunchback of the Roses

*The hunchback messenger with his
Burden of roses is sometimes seen
By hurrying pedestrian, or from bus-top,
And invariably he seems arrested
On point of meditation at a street-corner
Wondering if to turn right or left,
Consulting a small scrap of paper
Before taking a decisive direction
For delivery of his wares.
He is laden with other flowers at other seasons,
Tottering under a weight of dahlias
Or giant sharp and sweet chrysanthemum
In autumn's smoke-blue streets,
Where he pauses before polished, numbered doors
To deposit impersonally, with delicate, regret-tinged touch,
The florist's orders.*

*Carnations of wedding-groups, voluptuous iris,
And the orchids of jungle brilliance
With sulky, pouting lips
Are entrusted in his care on their way
For beauty's adornment, the glamour of star fame
And flashing cameras, or the hum and silver tinkle
Of public banquet.*

*Puny-bodied, he is a gnome, a pale familiar
Of Flora's cult as he shuffles on his errands,
His horizon the scented flower-basket's rim.*

*But the time of roses is the transmutation
Into an upper glory
Where he becomes unsubstantially real,
The infinite guardian of all the velvety
Queen flowers of crimson, rose, and ivory limbs.
Never do they fade or die in his conception,
For yesterday's roses live again in
To-morrow's blooms, and in his dreams.*

*He whom beauty and chance passed by
Cherishes them, the myriad shapes of grace
That he holds for precious moments
In the city's hurly-burly, and then
Must relinquish to other hands.
Yet he and the flowers are in secret bond,
And no market-place can part them.
His shabby clothes have grown
To mystic raiment where perfume lingers,
And presence of eternity surrounds him,
For the flowers of paradise have no seasons.*

ODETTE TCHERNINE.



The Spreading Net

MATHEW HAYNES

'NOW then, wake up,' said the young man in the straw hat.

The lion couchant paid no attention and went on sleeping under the oak.

'Wake up, I say,' said the young man, and poked the lion in the ribs with his stick.

The lion, still couchant, opened one eye, caught a glimpse of the young man, and said: 'Illegitimate.'

'What did you say?' asked the young man, who was inclined to be sensitive about that sort of remark.

The lion opened both eyes, stretched slowly, and raised himself to his feet. 'What I said, if you must have it at length, was that you are not entitled to the ribbon you wear round your hat. Or failing that, that you are an unworthy pupil of the school whose colours you wear. To make myself even more clear, I consider your manners those of a haberdasher rather than of a gentleman.'

The young man was not abashed. 'I have come to collect your tax,' he said. 'That will be three guineas, please.' He pulled out a receipt-book hopefully.

'Never heard of it,' replied the lion, and lay down again.

The young man prodded him afresh.

'If you do that once more,' threatened the

lion, 'I shall be compelled to eat you, straw hat and all.'

'And he would, you know,' added a wyvern, who had come and perched on the tree in the last moment or two.

The young man stopped prodding and addressed himself upwards. 'Will you give me your three guineas tax?' he said. 'You are the gryphon, aren't you?'

'No and no,' replied the wyvern. 'Firstly, I have no income and am therefore not liable for tax. Secondly, if you don't know a wyvern from a gryphon you ought to go back to school and get finished off. That is, if the lion doesn't do it first.'

'Oh, it's not income-tax,' explained the young man. 'It's a new tax, really, or rather an adaptation of an old one. There's always been a tax on armorial bearings, you know, and it seemed right to tax the bearings themselves, as well as the people who have the bearings. One law for everybody, if you see what I mean.'

'Now, isn't that clever!' said the wyvern. 'I wonder who was ingenious enough to think that out. He must be very highly regarded in the tax-office!'

'As a matter of fact,' said the young man, without any display of modesty, 'I thought

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of it myself. And when I told the chief he promoted me to acting assistant collector and told me to go and get it.'

'Wasn't that nice, now!' The wyvern thought a moment. 'And how do you propose to collect it, if I might tactfully inquire into the secret workings of your official mind?'

'I was going to ask everyone first,' answered the young man, 'and then if anyone didn't pay up, they would have to be summonsed. There are some of you with gold chains and collars, which we could take in payment. But if any of you hadn't anything, you would have to go to prison till you paid.'

'If you were to ask me,' interjected the lion, who appeared to have woken again, 'it's silly and dishonest, to say the least. There are quite a few armorial animals who enlisted as supporters long ago, and who won't put up with supporting the state in the way that you have conjured out of your pettifogging little official brain.'

The wyvern hastened to pour oil. 'I'm sure this young gentleman means well,' he said, with a wink to the lion. 'Perhaps he didn't explain himself very clearly, but it certainly seems that the law is on his side, and all that remains is for us to do our bit. From each according to his means, you remember, and to each according to his ability. So if you, sir (he turned to the tax-collector), if you could come back a week to-day, with your assessments, a receipt-book, and possibly a wheelbarrow or some such vehicle, we will see what we can do for you.'

The young man was delighted. He had hardly expected more than a grudging payment, and that after a lot of trouble. Such wholehearted co-operation was almost too good to be true. He raised the hat to which he was not entitled, thanked them both too effusively, and walked off.

'**REALLY,**' said the lion couchant, 'you must have gone out of your senses. To talk so politely to that little whippersnapper. If I'd been anything but a very peaceful couchant beast I should probably have killed him. Nine at one blow, though I'm not sure that he's worth as many as nine tailors.' He was apt to be a little confused when he woke from his sleep.

The wyvern sighed. 'Don't take it so hard. Brute force doesn't get you anywhere. What we need is a bit of guile. I've got a glimmer-

ing of an idea and I'm just off to have a chat with the gryphon. Head of an eagle, you know, and he can see further than most of us.'

He limbered up and took off from the oak, his tail dangling behind him like a half-opened parachute.

SEVEN days later most of the heraldic beasts were gathered near the old oak tree. The lions sejant had pleaded their royal immunity, and had refused to come, but had asked the lion couchant to act for them. The stags, bears, unicorns, and the other quadrupeds were in their usual poses, regardant, couchant, and rampant, but continually disturbed by the beasts passant and repassant. Down the slope in a brook were the mermaids and dolphins naissant, complaining bitterly of the shallowness and low salinity of the water. Up in the branches of the tree were the assorted birds, one monkey, reversed, and the gryphon and wyvern.

It was all very quiet, apart from the sounds of breathing, preening, scratching, and the noise the golden grasshopper was making with his hindmost legs out of sheer nervousness.

Then along the path, from a distance, softly at first and then louder and ear-piercingly louder, came the sound of the wheelbarrow. The acting assistant collector, sweating slightly, for he was out of training, parked it in the centre of the clearing and looked around. 'Glad to see you all here,' he began heartily. 'Makes it all much easier if you pay on the nail. Now for the assessments,' and he started handing round slips of paper.

'Excuse me,' said the wyvern, 'but how many of us are you prepared for, Mr Tax-Collector?'

'Dunno, but I suppose a couple of hundred. The chief thought there might be more of you, but he wasn't sure.'

'Would you call it three hundred?' asked the wyvern. 'There are some of us missing, but that seems a reasonable figure, though I may be a few out either way.'

'Well, call it three ten,' said the young man. 'Mustn't defraud the Government, you know.'

'Which makes, I think, nine hundred and thirty guineas,' said the wyvern.

'A thousand pounds, nearly,' said the young man.

The beasts groaned quietly to themselves. It looked like a long stay in prison for many of them.

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'Fair enough,' agreed the wyvern, 'but do you mind taking it in gold?'

'Whyever not?' replied the young man. 'Where is it?'

'Now, that is a very sensible question,' said the wyvern. 'It's one that has been puzzling a lot of people for a long time. But we have the answer for you, thanks to my friend the unicorn. He was out one day last April when it was a bit showery, and he happened to come on the rainbow's end. So we'll all go along there, and you can dig out the crock of gold.' And led by the unicorn they all went down the slope and along the brook till they came to a little waterfall in a glade.

'IT'S just around here, somewhere,' said the unicorn, pointing to a patch of grass.

'That's not good enough,' said the tax-collector. 'Show me exactly where it is.'

'I didn't see exactly,' replied the unicorn.

'Well, I'm not going to dig all that up on the off-chance. You'll have to find some other way to pay me the thousand pounds.'

There was a hostile silence and one of the lions rampant started fidgeting.

'Perhaps,' suggested the gryphon, 'if we could get a mole to give us a hand—'

There was another pause.

The young man turned to the unicorn. 'You there, unicorn,' he said, 'prod the ground with your horn till you find the crock. You might as well make some use of your excrescence.'

The unicorn turned a bloodshot red wherever his skin showed. The lion rampant inspected his claws again.

'Go on,' said the wyvern quietly. 'I don't agree with the sentiment, but the idea is passable.'

The unicorn prodded, and after a few goes there was a dull, clinking sound. 'There you are,' he said. 'Now, you dig.'

On this, the young man started digging. After a little while he took off his straw hat.

He dug a few spadefuls more and took off his coat. His waistcoat was discarded a foot further down and he stood revealed in the braces of quite a different school from his hat-ribbon. From there on it was just sheer hard work, with all the beasts standing curiously round watching him. At last he got to the crock, full of shining gold sovereigns, and started shovelling them into his waiting barrow.

'I hope you're counting them carefully,' said the wyvern. 'We shouldn't like you to be short at all.'

'I think this lot will do,' he answered. 'There may be a few too many, but that doesn't matter to you,' and went on shovelling. When the crock was just about empty, he pulled it out of the hole, tipped the few remaining coins into the wheelbarrow, put on his coat and hat, and got ready to move off.

'Are you quite satisfied?' asked the wyvern. 'Can we have a receipt now?'

He gave them one and staggered off, pushing the heavy barrow in front of him, and pausing now and then to pick up a sovereign that had fallen off, for it was very full.

The beasts watched him out of sight, then went to go about their own business. As they left, the lion couchant caught the eye of the wyvern. 'I'm afraid I missed some of that,' he said. 'We don't usually hand out crocks of gold as we did to-day. What was it, fairly gold?'

'As a matter of fact, I'm not sure at all,' the wyvern said. 'If it is, we're all right, of course, for when it turns to leaves that young man will undoubtedly get into trouble for defrauding the Exchequer.'

'Ah, but suppose it isn't,' persisted the lion.

'That doesn't make much difference either,' said the wyvern. 'If you remember, they were trying to stop hoarding a couple of years ago, and they made it a capital offence to be in possession of coined gold. He'll have to talk very fast to get round that.'

Lament for a Secretary

*I tried to force duty on beauty
Which could not be hid,
Trained her up in the way she'd to go—
Go she did!*

LORNA WOOD.

Petrol-Lighter Flints

M. J. ROBB, B.Sc., F.R.I.C.

SINCE the end of the Second World War, during which utility models became available, more expensive pocket petrol-lighters in a variety of designs have achieved great popularity among cigarette-smokers of both sexes. These handy gadgets are not as a rule so convenient for pipe-smokers, who usually consume vast quantities of matches.

Although most people are aware that the colourless spirit sold for refilling lighters is a specially-refined petrol, probably only a small proportion of users could state off-hand what is the nature of the 'flints' which supply the sparks to ignite the vapour coming from the wick. Before coming to this subject it might be mentioned that motorists, who are perhaps not so fastidious about the odour of fuels, often fill up their lighters with car petrol and, according to a report in the Press at the period of severe rationing, the converse has not been unknown. Running a car on lighter spirit must have been very expensive, for in half-pint bottles having a pouring device the cost works out at 30s. a gallon!

THE small metallic objects called lighter flints, and the larger ones for gas-jets, have, of course, no connection with the real flint of the old flint and tinder fire-raising method, which consists of silica, a very much harder material. The technical name of the substance of which cigarette- and gas-lighter flints are made is pyrophoric alloy, so called because it is capable of igniting at a low temperature, supplied in these cases by friction against steel. Incidentally, when a pocket lighter is in action, besides the visible sparks produced, the flint when rubbed by the steel striker throws out many invisible small fragments of alloy. The distant ignition of these is very noticeable when lighting a second burner on a gas-stove. Evanescent flashes

may be seen in a bright coal-fire when using some pocket lighters at a yard's distance.

The basic constituent of lighter flints is the metal cerium, which is found together with lanthanum and several other members of the group called rare-earth metals in a product called mischmetal, obtained from the mineral monazite after extraction of the thorium, a metal which is itself connected with the subject of lighting, since its nitrate in a pure form is the coating on the fabric of incandescent gas-mantles, while its use as an addition to tungsten in the making of electric-lamp filaments renders these filaments much more ductile.

As for mischmetal itself, this substance, containing about 50 per cent of cerium, and also known as standard cerium alloy, is too soft for use in pocket or gas lighters, although it can produce sparks. So it is alloyed with about 30 per cent of metallic iron and otherwise improved by small additions of such metals as magnesium and copper and the non-metal boron. Small percentages of silicon or calcium are sometimes incorporated.

Previous to 1939 the largest production of mischmetal was probably in Austria, but during the late war and since it has been turned out on a large scale in Great Britain. Most of the alloy is taken up by lighter flint manufacture, although various salts of the rare-earth metals contained in it are used in the glass and several other industries.

By far the largest source of monazite, the raw material on which the lighter flint industry depends, is found at Travancore in India and in Brazil, but similar deposits occur in Malaya, Australia, Ceylon, and Nigeria, as well as in the United States. In view of the properties of thorium mentioned above, the export of monazite sands is controlled by a number of governments, including those of the British Commonwealth.

The Romance of the Village Church

X.—Effigies

ARTHUR GAUNT, F.R.G.S.

A WIDE and absorbing field for study and research lies in the wealth of monumental figures which enrich our village churches. Our great cathedrals and abbey churches, of course, have splendid examples of this type of memorial, but our smaller churches also are well endowed with such effigies.

In Britain the custom of commemorating the dead with sepulchral figures began in the 12th century, though at that time the idea was not to carve a three-dimensional effigy but to incise a figure on the deceased's grave-slab. Our early abbots often had such memorial slabs, as distinct from a fully-sculptured effigy.

By the next century, nevertheless, separately carved figures were being produced, and as time went on guilds of craftsmen engaged in carving these began to flourish in various localities. Many of the early effigies were of wood, and about ninety examples still remain, as at Chew Magna, Somerset. Such effigies were especially subject to despoliation, and many were destroyed in Puritan times. A 13th-century specimen at Radcliffe-on-Trent, Nottinghamshire, suffered destruction in a curious way at a much later date, the villagers being so delighted by the news of Napoleon's downfall that they took a wooden effigy from their church, dressed it to resemble him, and then burned it in public!

But most of our village church sepulchral monuments are made of ordinary stone, alabaster, or marble. Stone effigies were produced chiefly in Devon, Somerset, Yorkshire, and the Cotswolds. Nottinghamshire, Derbyshire, and Staffordshire had thriving alabaster figure industries, and a trade in marble effigies flourished at Purbeck.

Old family account-books, recording the fees paid for tomb monuments, have revealed much about the trade. They disclose that

effigies were often ordered from distant centres, and that the sculptors did not come to the church to carve the figures but fashioned them in their own workshops. They were then transported by boat or ox-cart.

IT is important to bear in mind that, striking though many effigies may still seem, they were even more so in the Middle Ages, for they were brightly coloured. Medieval documents, in fact, often refer to effigies as 'pictures.'

A surprising discovery was made at Combe Florey, Somerset, early this century, when a number of shells containing paint were found in a recess behind one of the tombs in the village church. They had evidently been left by the men who painted the effigy some five hundred years earlier.

On the other hand, it is not to be assumed that the sculptors of past centuries produced real likenesses of the persons commemorated. This is clear from the fact that most of the effigies show a person in the prime of life. The only common exceptions were the figures made for the tombs of royalty and others of high rank. In their case a death-mask was often used by the sculptors as a guide.

Nevertheless, the effigies in our village churches are essentially personal memorials, for the armorial bearings, clothes, and weapons of the deceased were often depicted. A realistic effect was thus achieved, even though the features were not a true likeness. Frequently the person's family were shown in smaller figures round the altar-tomb. The sixteen offspring of Sir Humphrey Bradbourne, for instance, are carved on his alabaster sarcophagus in Ashbourne Church, Derbyshire.

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THE approximate age of an effigy can often be ascertained by noting the style of head-dress worn by the figure. In the 13th century knights were shown wearing a flat-topped helmet of metal—best described as an inverted pan with a horizontal slit for the eyes. An example is in Kirkstead Church, Lincolnshire, where there is an effigy of the second Lord Tattershall depicting him protected by such a helmet.

Knights of A.D. 1300-1450 are represented with conical helmets, as at Holbeach, Lincolnshire, whilst civilians of the 14th century are shown with long hair and forked beards. Effigies of ladies with butterfly head-dress date from approximately the middle of the 15th century.

The pose adopted by the figure is a further guide. Although it is not to be assumed that all examples showing a devout figure with hands folded and eyes closed as in prayer are ancient—this attitude being still popular in the 17th century—those which show a less reverent pose are rarely of pre-Reformation origin. It was the reign of Charles I which really pioneered the effigy lolling on the elbow or striking some other attitude which cannot exactly be called reverent.

AN equally fascinating study is the story of the individual sculptors, or masons, as they were termed in the Middle Ages, for, until as recently as the middle of the 18th century, masons were not only builders but skilled sculptors as well. Among famous names in this connection, whose work may be found in village churches, were Nicholas Stone (d. 1647), Gerard Christmas (d. 1633), Epiphanius Evesham, Thomas Stanton (d. 1674), Peter Scheemaker or Scheemakers (b. 1691), Francis Bird (d. 1731), John Michael Rysbrack (d. 1770), and the Van Osts or Van Nosts, uncle and nephew, who worked in Piccadilly, London, during the late 17th and early 19th centuries. Royal Academicians have carved some of our village church effigies. Thus, the lovely little church at Withyham, Sussex, has a monument by Joseph Nollekens, who was so successful as a sculptor and businessman that he left no less than £200,000 when he died in 1823.

Effigies executed by Gerard Christmas and his two sons were formerly much more numerous than they are to-day, but the Calthorpe monument at Ampton, Suffolk, and

the memorial to Anne Drury at Hawstead, in the same county, are representative of them. This family of sculptors carried on their business in Cripplegate, London, but the effigies they produced were sent all over England.

The lists of members of the Masons' Company have been helpful to antiquarians eager to unearth the history of these effigy-making businesses, yet identifying an effigy with a certain sculptor often presents difficulties. Effigies earlier than the 17th century are seldom signed, though one hundred years later it was becoming more usual for the mason to add his signature. Only two sculptors are known to have made a rule of signing their work in the 16th century—John Gildon, whose workshop was at Hereford, and John Tarbotons, one of whose admirable figures is to be seen in the church at Staindrop, Co. Durham.

Account-books of a few of the firms have been found, but many others have vanished, and without them it is necessary to pursue other avenues of inquiry when the name of the sculptor of an unsigned effigy is being sought. As already mentioned, family archives sometimes give a clue by revealing to whom the fee for a monument was paid, or even by disclosing that a servant spent a certain sum on journeying to a sculptor's workshop with drawings for the carving.

Again, as the style of sculptors varied, by comparing their known works with examples of less certain origin a clue can sometimes be obtained which will lead to definite identification. Gildon's work, for example, is noted for its Italian details; William Stanton put angelic figures round his monuments, though for some years before his time the use of these, and the figures of saints, was banned by the Puritan laws. Effigies of his, enriched with angels, are in the village church at Great Mitton, near Clitheroe, Lancashire.

The scope remaining for research into the story of our village church effigies and the men who made them is shown by simple statistics. Of about two hundred sculptors on the rolls of the Masons' Guild during its heyday, less than forty can now be identified with particular monuments. Yet the other masons must have carved hundreds of effigies and, even allowing for the number which have been destroyed, examples of their work must assuredly await identification in village churches throughout the country.



Lotus Flower and the Li Po Poem

OLWEN LAWTON

IN the second century of the Manchu dynasty there lived in Peking a wealthy merchant by the name of Chien Lifu, a man of solid and upright principles who had but two weaknesses. The first was his collection of ancient calligraphy. The second was his daughter, Lotus Flower.

Lotus Flower was, indeed, a beautiful young girl, spending her days in gentle happiness beneath the aspen plums of her father's secluded garden, occupying the hours with embroidery and flower arrangement and the care of her pet, Golden Phoenix, a pekinese of exquisite appearance and intelligence.

Now, it so happened that in order to complete his collection Chien Lifu coveted a four-line poem by the famous poet Li Po—an example of calligraphy so perfect that it was the envy and astonishment of all modern students. This poem was in the possession of one Li Ming, a silk-merchant whose magnificent mansion towered even above the emerald-tiled pagodas of Peking. And at last, after many months of polite haggling, it seemed as though Li Ming might be prepared to part with his precious scroll. 'My humble poem,' Li Ming said, as he sipped tea in

Chien Lifu's study, 'is really not worthy of my honourable friend's notice.'

'No doubt you speak from the highest motives,' Chien Lifu replied, with an urbane smile which lifted his long and thin silken moustaches. 'It is merely that the poems of Li Po in my collection are incomplete, and it would seem disrespectful to the hallowed poet's memory to contemplate such an omission on the walls of my so unworthy home.'

'Alas, that the poem is beyond price,' Li Ming said softly, giving a polite and loud belch as he swallowed a large sugared plum. 'But since the death of my first wife'—here he folded his hands together and bowed with downcast eyelids to her memory—'life has been empty for this lonely and worthless old man. It is with modesty I suggest that your daughter Lotus Flower may complete my household and cover any gap left by the departure of the Li Po poem.'

Chien Lifu fondled the little china cup between his well-cushioned palms, inhaling the aroma of the fragrant tea while he contemplated this not-unexpected request. 'I should be desolate to lose Lotus Flower,' he said at length, 'but I must think of her future happi-

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ness. And to know that she was the wife of such a highly respected and honourable man as yourself, Li Ming, would comfort my last years and send me in smiling composure to join the tombs of my revered ancestors.' And Chien Lifu, who was in the prime of life, put a long-nailed hand over his mouth to hide a prodigious yawn.

Many more cups of tea were slowly sipped, and another dish of sugared plums consumed, before the dowry details were finally concluded and Li Ming, his hands clasped beneath his well-filled belly, rose to go.

Chien Lifu called for his servants and accompanied the merchant to the door. Bowing from the waist, he waited until the swaying, sweating pole-bearers had carried the curtained litter away down the dusty street. Then he summoned his daughter to his presence.

'HONOURABLE FATHER, you wished to see your insignificant daughter?' Lotus Flower glided to a standstill, her eyes modestly downcast, her little white hands thrust into the wide sleeves of her silk jacket.

'Ah yes, my child.' Chien Lifu looked with pleasure upon the slender figure. Her jet-black hair was oiled until it shone like the richest velvet, and the bloom upon her cheeks rivalled that of the finest peaches in his courtyard. Her painted lips and delicately-pencilled eyebrows retained an unmoving composure.

'As you know,' her father continued, putting the tips of his fingers together and keeping his eyes focused on a point some several inches above the girl's head, 'it is time for your betrothal, and you cannot be unaware of the fact that already I have chosen a most suitable suitor for your hand—'

'It is the merchant, Li Ming?' Lotus Flower's voice was faint and the hands beneath her sleeves trembled.

'Ah, I am pleased that my beloved daughter has used her eyes and ears to such good purpose.'

'I have noticed,' Lotus Flower said softly, 'that for many months the distinguished and wealthy Li Ming has been calling upon you.'

There was not the slightest indication upon the calm and lovely features that Lotus Flower's heart was filled with an impotent yet overpowering hatred for the man Li Ming, and her father went on serenely: 'He is a little

weighted with years, perhaps, but it is well said that a young girl's heart blossoms more tenderly beneath the care of a ripe wisdom.'

'My honourable father,' Lotus Flower bowed like a water-reed against the evening breeze, 'is indeed kind to think thus of his commonplace daughter's happiness.'

Chien Lifu sighed to himself, and his moustaches quivered as he swallowed a small particle of sweetmeat which had become lodged in a hollow tooth. Then he rose somewhat heavily from the cushion upon which he had been reclining and walking across the room touched the girl's forehead with his parchment-dry lips. 'All is well then, Little Lotus. When the magnolia petals fall, the nuptials will be celebrated.'

'My undistinguished self is not fitted to receive the kiss of my noble father,' Lotus Flower murmured politely, wondering at the same time whether Li Ming's even drier and detested lips would soon be touching her person.

WHEN Chien Lifu with a slow and solemn step had left the room, Lotus Flower waited for a few moments and then, pushing back the paper door, she went into the courtyard and crossed quickly to the women's apartments. In her own room Golden Phoenix, with one bound of his silken paws, leaped into her arms and nuzzled his cold wet nose against the girl's slender throat. Lotus Flower buried her face in the warm golden fur. She held back the little head and looked long into the bulbous, intelligent eyes. 'Dear Golden Phoenix,' she whispered, 'you at least are my true friend. You would not betray me—for a mere poem!'

'Little Mistress—what has happened?' The maidservant Muskrose appeared from behind a screen and running softly across the room knelt at the girl's feet.

Lotus Flower sank down on the bamboo bed, her dark head bent over the dog while her fine white fingers caressed the silken ears. 'It is all over, Muskrose. My father has told me that I am betrothed to the merchant Li Ming. The marriage will take place—when the magnolia petals fall.' Her voice faltered and her eyes filled with tears.

'And Ah Qui? What will become of him?'

At the mention of the young man whom she loved, Lotus Flower lifted up her face and the white teeth bit firmly into her lower lip as

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though to prevent the trembling which suddenly threatened to overtake her body.

Muskrose waited sympathetically, and after a small silence Lotus Flower wiped away her tears. It is said, not without truth, that the cunning of a father is passed on to his daughter and Lotus Flower was no exception to this maxim. Her brain was working with enviable clarity and speed. 'Ah Qui.' She breathed the words softly. Then she said in a determined voice: 'I must see him. Could you arrange a meeting to-night, Muskrose?'

'I would try, Little Mistress.'

'In that case,' Lotus Flower said firmly, 'I will discuss the matter with him by the pagoda in the ornamental garden. Let me see,' she added, idly ruffling the fur of Golden Phoenix, 'it is to-night, is it not, that my father pays his visit to the Street of the Singing Girls?'

Muskrose nodded. Had Chien Lifu been able to overhear this conversation, he would have been dumbfounded that his most hidden movements were no secret either to his daughter or to her maidservant. But then, as the poet said: 'Tai chan, the great mountain must crumble. The strong beam must break. The wise man must wither away like a plant.' And to Lotus Flower, all her father's weaknesses were only too well known, thus undermining the façade of wise omnipotence which he fondly imagined he presented to the world.

'Fetch me the keys of the ivory room, Muskrose,' Lotus Flower ordered. 'I have a mind to read some of the poems written on the scrolls of my father's no-good collection.' These scrolls, on faded yellow silk, were considered unworthy by Chien Lifu of adding to his priceless exhibition of calligraphy, and collected dust and cobwebs in an unused room at the far end of the women's apartments.

The lovely eyes of Lotus Flower grew thoughtful as she sat, waiting. . . .

LATE that night the moon shone on the undisturbed garden, the sleeping lilies, the closed magnolia buds. Quietly from the shadows glided the slender figure of Lotus Flower. Her silken coat, of a soft violet hue, with bands of delicate green at the throat and wide wrists, was worn over narrow trousers of softest rose-pink, and her tiny feet were covered with embroidered slippers. Tucked into the sleeve of her coat was a worthless scroll of faded calligraphy.

She seemed to float across the garden,

Golden Phoenix a shadow padding silently behind her, and Ah Qui, waiting and watching in the doorway of the timbered pagoda which served as a summer-house, caught his breath in delight and wonder as Lotus Flower approached him in the moonlight.

After they had embraced one another, he said softly: 'Little Lotus, if only I were rich like Li Ming! But, alas, I am only his secretary, and young and poor.'

'You speak only too truly.' Lotus Flower laid her cool cheek against his, her eyelashes fluttering up and down with a touch fragile as a butterfly's wing. 'It would be useless to argue with my honourable father, for as you know, Ah Qui, it is the poem that he covets and there is no other way of obtaining it, except by giving me to Li Ming as his wife.'

'I will kill him first!' the youth broke out passionately.

'Hush, Ah Qui, you must not talk in such a manner. Besides, between us, do you not think it would be possible to evolve some plan? My father does not suspect that I know about the Li Po poem. He thinks it is a secret between himself and Li Ming.'

'That is true,' Ah Qui said, holding her hand tenderly in his own and looking into the warm, dark eyes. 'My master told me nothing, either. But when he returned to-day, with his hands rubbing together, and gazed at the poem of Li Po with that smug and secret smile beneath his greying moustaches—'

'Of course,' Lotus Flower broke in modestly, at the same time extracting the scroll from her sleeve, 'my idea may be useless. My poor brain is perhaps no match for the long-lived Li Ming. But as Confucius said: "Youth is to be regarded with respect. How do we know that his future will not be equal to our present?"'

He took the scroll from her as she went on to whisper her plan in quick, brief sentences. And gradually a smile curved his full young lips and a deep chuckle commenced to rumble in his throat.

'Naturally,' Lotus Flower finished, 'there will be some danger in the plan. But you are so clever, Ah Qui, I do not doubt that you can do it.'

'It will take some time,' he said thoughtfully, 'but my experiments with the ink were perfect. The difficulty will be to attach the silk to the ebony frame.'

'We will choose a night when both Li Ming and my honourable father visit the Street of

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the Singing Girls,' Lotus Flower said, lowering her eyes at the utterance of this extremely immodest statement. 'And then Muskrose and I will remove the old stitches—' She broke off as Golden Phoenix whined softly. 'Quick,' she added, 'you must go, Ah Qui. Someone is in the garden.'

The young man embraced her tenderly and then sped away into the night, his figure flitting beneath the plum-trees.

Picking Golden Phoenix up in her arms, Lotus Flower swayed back along the path and reached the ornamental lily-pond before one of her father's concubines spoke to her.

'It is the naughty Golden Phoenix,' Lotus Flower answered. 'He ran away just as it was time for him to be put to bed! But he is good again now.' And she tweaked one of the silken ears, just to show that she didn't mean a word of this unjust reprimand.

THE weeks sped by. The magnolia flowers opened and the bees became busy among the lemon-scented petals, and the plans for the wedding went forward with commendable speed. Bale after bale of the finest silk was laid down in carved chests of cedar wood; linen of the rarest quality; ivory and silver and lacquer ornaments; china delicate as a young girl's complexion; spice boxes; everything, indeed, indicated the wealth of Chien Lifu and the love he bore his daughter.

The evening before the wedding was due to take place Muskrose stood behind her mistress carefully oiling her hair and twisting it into the high and ornamental headdress customary for the ceremony. On the bamboo bed was the wooden pillow which would ensure that not a hair of this superb creation would be disturbed, even during the most restless night. Twisting a plait between her skilful fingers, Muskrose asked softly: 'The Little Mistress is sure that all will go well?'

'I am but now waiting for the footsteps of Ah Qui outside my father's study,' Lotus Flower replied. 'Li Ming brought with him the Li Po poem two hours ago, and it is necessary for a proper interval to elapse before Ah Qui presents himself. Hush, can you hear anything?'

Golden Phoenix had stiffened at her feet, lifted his heavy silken ears, and whined softly. Faintly to their ears came the sound of a gate being opened and closed, hurrying footsteps, a voice in the night, and then, silence. . . .

Ah Qui stood nervously before the two men, his eyes downcast, his hands thrust into the sleeves of his cotton robe.

'What do you want, fellow?' Li Ming asked sharply, annoyed at this untimely interruption.

'Indeed, I apologise to my noble master most humbly, but I desired to speak with you before—before—' He raised his eyes and settled his gaze on the Li Po scroll which was laid out on the low table in the centre of the floor.

'Speak up, young man.' Chien Lifu drew heavily on his pipe, watching the smoke hang in the air above him.

'I would wish to speak to my venerable master alone.' Ah Qui's voice trembled with obvious nervousness and the embarrassment of youth.

'It is not necessary,' Li Ming spoke urbanely. He was feeling at peace with the world. 'What you have to say may be said in front of my honoured friend.'

'Alas, I would not wish to dishonour the reputation of my estimable master,' Ah Qui went on softly, noting with his keen intelligence that Chien Lifu had stiffened into attention. 'If you would perhaps withdraw the poem before it is too late.'

'If you are referring to the Li Po scroll before me'—Chien Lifu touched it with a pointed nail—'then it is now my property.'

Ah Qui bowed low, but not before he had noted the angry gleam in Li Ming's heavy-lidded eyes.

From beneath the folds of his garments Ah Qui produced a small bottle and a brush, and approached the table. 'It is with shame I must confess my unworthy suspicions,' Ah Qui said, 'but in my humble eyes this is not the true Li Po poem, but a copy made perhaps two centuries later.'

Li Ming stepped forward, his hand raised as though to strike the youth. But Chien Lifu said quietly: 'Confucius said, "Hold faithfulness and sincerity as first principles," and I am of the belief that this youth is convinced of the truth of his words. Proceed.'

Ah Qui leaned over the table and with deft strokes painted a colourless solution from the bottle over the scroll. After a few moments, brush-strokes appeared which had not before been apparent on the silk. As the three men waited, it became clear that another—and vastly inferior—poem was painted on the silk beneath that of the venerated Li Po.

'From my insignificant studies of cal-

LOTUS FLOWER AND THE LI PO POEM

igraphy,' Ah Qui said, his eyes intent on a spot between his feet, 'I would suggest with all humility that this scroll originally contained only a worthless poem of poor quality. This poem was then obliterated by the use of a special ink and overpainted with the Li Po poem. The work has been done by a not-inferior calligraphist and because of the antiquity of the silk my worthy master, Li Ming, has doubtless been deluded into the belief that the scroll in his possession was genuine.'

'I venture to suggest,' Li Ming here put in smoothly, his lips letting forth a light, venomous spittle, 'that the youth Ah Qui would most certainly find future service in my household irksome, and he is therefore released from such bondage immediately.'

Ah Qui bowed.

'You may withdraw. And wait.' Chien Lifu nodded dismissal.

As the door slid silently shut behind the tall figure, Li Ming's face had all the semblance of a thundercloud. 'I am sure,' he said at length, when he could control his words, 'that my honourable friend will realise that the commonplace man standing humbly before him had no knowledge of this deception.'

'Of that I am convinced'—Chien Lifu glanced again at the mutilated poem—'but as Confucius said: "When you have faults, do not fear to abandon them." It has suddenly struck this worthless person that cupidity has been a fault of the past. And it is with regret that I must inform my honourable friend that the marriage arranged with my daughter Lotus Flower cannot now take place.'

Li Ming bowed. 'And as Confucius also said: "Riches and honours acquired by unrighteousness are to me as a floating cloud." This contemptible person regrets exceedingly

that any doubts as to his integrity may have arisen in the mind of such an exalted personage as his friend Chien Lifu.'

With such polite expressions on both sides the interview at last came to an end.

NOW alone, Chien Lifu was able to summon his daughter Lotus Flower and the youth Ah Qui into his study. Looking at the ceiling, he said: 'I realise that the time has come when I should have in my household a secretary of undoubted ability—a youth, for instance, whose calligraphy is of the highest order.'

Ah Qui bowed impassively.

'Also,' Chien Lifu went on, glancing now at his daughter, whose painted cheeks could not hide the blush which most becomingly tinged her skin, 'I could not bring shame to the tombs of my ancestors by losing face and abandoning a marriage already announced to take place to-morrow. Therefore'—he noted with an inward chuckle the surge of gladness in the dark and lovely eyes of Lotus Flower—'therefore, my beloved daughter, I have decided that you shall be married to this accomplished young man, Ah Qui.'

Golden Phoenix, who had followed his mistress into the room, jumped on to the low table and sniffed at the worthless scroll.

As he dismissed the two young people, both of whom decorously tried to hide the fact that the prospect of heaven-on-earth was before them, Chien Lifu noted drily that the stitching on the back of the scroll was the exact shade of the hair of Golden Phoenix. 'Doubtless,' he thought to himself, 'in due time Lotus Flower will present me with the original Li Po poem.' And he took a sugared plum, swallowed it, and gave a satisfied belch.

The Apple for My Love

*The ash-tree shade for shepherd lad,
For bee the sweet lime grove,
The pear to make the song-thrush glad,
The apple for my love.*

*The rocking elm for jetty rook,
The green fir for the dove,
The willow for the silver brook,
The apple for my love.*

RICHARD MANSFIELD.

Twice-Told Tales

XXXI.—Alligator Rescue

[From Chambers's *Edinburgh Journal* of July 1853]

MORNING came at length, but with it no change in my perilous position. The light only shewed me my island prison, but revealed no way of escape from it. Towards evening, I began to hunger. What could I eat? The ibis. But how to cook it? There was nothing wherewith to make a fire—not a stick. No matter for that. Cooking is a modern invention, a luxury for pampered palates. I divested the ibis of its brilliant plumage, and ate it raw. I spoiled my specimen, but at the time there was little thought of that: there was not much of the naturalist left in me. I anathematised the hour I had ever imbibed such a taste; I wished Audubon, and Buffon, and Cuvier, up to their necks in a swamp. The ibis did not weigh above three pounds, bones and all. It served me for a second meal, a breakfast; but at this *déjeuner sans fourchette* I picked the bones.

What next? Starve? No—not yet. In the battles I had had with the alligators during the second night, one of them had received a shot that proved mortal. The hideous carcass of the reptile lay dead upon the beach. I need not starve; I could eat that. Such were my reflections. I must hunger, though, before I could bring myself to touch the musky morsel. Two more days' fasting conquered my squeamishness. I drew out my knife, cut a steak from the alligator's tail, and ate it—not the one I had first killed, but a second; the other was now putrid, rapidly decomposing under the hot sun: its odour filled the islet.

The stench had grown intolerable. There was not a breath of air stirring, otherwise I might have shunned it by keeping to windward. The whole atmosphere of the islet, as well as a large circle around it, was impregnated with the fearful effluvia. I could bear it no longer. With the aid of my gun, I pushed the half-decomposed carcass into the lake; perhaps the current might carry it away. It

did: I had the gratification to see it float off. This circumstance led me into a train of reflections. Why did the body of the alligator float? It was swollen—inflated with gases. Ha!

An idea shot suddenly through my mind, one of those brilliant ideas—the children of necessity. I thought of the floating alligator, of its intestines—what if I inflated them? Yes, yes! buoys and bladders, floats and life-preservers! that was the thought. I would open the alligators, make a buoy of their intestines, and that would bear me from the islet!

I did not lose a moment's time; I was full of energy: hope had given me new life. My gun was loaded—a huge crocodile that swam near the shore received the shot in his eye. I dragged him on the beach; with my knife I laid open his entrails. Few they were, but enough for my purpose. A plume-quill from the wing of the ibis served me for a blow-pipe. I saw the bladder-like skin expand, until I was surrounded by objects like great sausages. These were tied together, and fastened to my body, and then, with a plunge, I entered the waters of the lake, and floated downward. I had tied on my life-preservers in such a way that I sat in the water in an upright position, holding my gun with both hands. This I intended to have used as a club in case I should be attacked by the alligators; but I had chosen the hot hour of noon, when these creatures lie in a half-torpid state, and to my joy I was not molested. Half an hour's drifting with the current carried me to the end of the lake, and I found myself at the debouchure of the bayou. Here, to my great delight, I saw my boat in the swamp, where it had been caught and held fast by the sedges. A few minutes more, and I had swung myself over the gunwale, and was sculling with eager strokes down the smooth waters of the bayou.

Science at Your Service

LIGHTING FOR TELEVISION

THE new domestic-lighting problem created by television was discussed here in September 1952, one solution being the installation of dimmer switches. Another is an ingenious table-lamp which can provide either subdued or normal light. The base of the lamp is an alabaster bowl. When subdued light is required, the light comes from inside this bowl. For normal light, it comes from the bulb above as with any table-lamp. Separate switches determine which of the two lights is required. The lamp is attractive in appearance and seems to be particularly suitable for the fairly small room where there is a television-set.

AN ADVANCE IN BRAILLE

Braille printing is old-established. The centenary of Louis Braille's death was honoured last year, yet Braille had designed his six-dot notation for writing, musical, and mathematical symbols whilst still a schoolboy. The imprinting of Braille for the blind has almost entirely involved embossing, the raising and indenting of paper surfaces. In co-operation with the National Institute for the Blind, a new ink-and-stencil method has been developed. It seems probable that Braille costs will be reduced, for the new method is quicker and does not require the use of specially heavy paper. Also, Braille notation can be printed on both sides of the paper, an impossibility with the embossing method. The new invention rests entirely upon the ink that is used. An ink of the most precise properties was required. It had to possess a specific viscosity to make horizontal printing in relief possible on a vertical plane. When dry, the ink had to give semi-spherical dots of even height; moreover, these dots had to be permanently incompressible and resistant to distortion. The production of such an ink has been achieved by the synthetic resins or plastics industry. It can be made from basic materials that are relatively cheap and readily available. The bond formed between the dried ink and the paper is said to be stronger

than that between the individual fibres in paper itself. The bead-like dots stand out boldly in relief and they are said to have the special 'feel' that facilitates Braille reading by the blind. The plastics industry has been responsible for many spectacular changes in material usage, but this new one, though it may never involve a large-scale use of synthetic substances, is undoubtedly among the most notable.

PLASTICS AS PANELLING

The best type of laminated plastics panelling for decorative and hard-wearing surfaces has not been generally available for some years. For one reason, its fitment has been regarded as a task for specialised labour; for another, supplies have been limited. As a result, this panelling material has been handled by contractors, kitchen-furniture manufacturers, etc., and it is only recently that it has been produced for private purchase and use. In a wide range of colours, often pastel-shaded with a background pattern resembling woven linen or canvas, hard and smooth, easy to wipe clean, and proof against hot teapots or, in one grade, even lit cigarettes, this modern material will have been noticed by most people as café table-tops, public-house and shop counter-tops. It is now being offered in a new grade with a plywood backing for easy handling by amateur craftsmen, at a moderate price per square foot and in a selection of colours and patterns. The panelling can be cut with a fine-toothed saw and attached to cleaned surfaces (table-tops, walls, etc.) with animal glue or synthetic adhesives. It can be used to modernise furniture, as kitchen or bathroom tiling, or as wall panelling. Indeed, the home uses to which it can be put are determined by the imagination of the household handyman. For use as kitchen table-tops, standard-sized panels are available, ranging in size from 24 by 18 inches to 48 by 24 inches: special sizes, the manufacturers state, can be supplied up to 96 by 48 inches. Again, an attractive variety of colours is available.

CHAMBERS'S JOURNAL

PAINTS AS THERMOMETERS

A new research development in America is the use of colour-changing paints to show when high temperatures have been reached during heat-building operations. A wide range of paints for determining various temperatures has been experimentally produced, using metallic compounds of metals like cobalt, copper, chromium, etc., in combination with a colourless synthetic resin base. These paints can be sprayed on to aircraft-engine parts or on to fairly inaccessible parts of other machinery, and colour changes that develop while the machinery is in operation will give warnings when maximum temperatures have been reached. Engineers of the future may find themselves using entirely new variations of the old phrases 'red-hot' and 'white-heat.' It should be pointed out that these paints are not yet being commercially produced and would seem likely to become available in America before they become so elsewhere.

A MAP-MEASURER

One of the most attractive new appliances we have examined for some years is a map-measurer. It is quite compact, resembling in size a small slim pocket-watch. At the base of the dial a small free-running wheel is attached. The movement of this wheel operates the movement of the dial pointer, so that it is only necessary to run the wheel over the course of a journey or distance between places on a scaled map to have the actual distance measured by the pointer. Five conversions of map distances into actual distances are possible, for one side of the dial carries three circular conversion-scales—*inches into nautical miles, inches into kilometres, and inches into statute miles*—whilst the other side of the dial converts centimetres into kilometres and inches into miles. For other map scales—for instance, half-inch to the mile scale, simple arithmetic will convert pointer readings into actual distance. For each use the pointer can be taken back to zero by reversing the wheel motion. At the top of the dial a ring is attached so that the appliance could be carried on a chain, but it is more likely to be regarded as a pocket instrument, for its total length is only 3 inches and its width $1\frac{1}{4}$ inches. It weighs one ounce. The dials are glass-enclosed and the rest of the instrument's metal construction is chromium-plated. For motorists, cyclists, and walkers

the map-measurer will be a most attractive and useful possession. Architects, engineers, surveyors, draughtsmen, and builders will also find many uses for it, particularly in measuring arcs and curves. Although we do not often mention prices in these notes, the particularly low cost of this appliance—not much over half-a-guinea—deserves special comment. It should prove a most attractive but inexpensive present for male relations.

A SMALL WATER-SOFTENER

While there is nothing technically new about the softening method used in this new water-softener, it merits special attention for its design. It is intended to meet a limited household demand for softened water. It measures only 5 by 3 inches and is fitted directly on to the tap. A cartridge of the softening agent will soften approximately 15 gallons of water; after this volume of water has been drawn through the appliance the cartridge must be removed and regenerated by soaking in a solution of common salt. From time to time new cartridges must be bought. The price of this softener, including a spare cartridge, is extraordinarily modest. If the use of softened water in a household is not general—confined, for example, to garment-washing or to one person's drinking requirements—this ingeniously-designed tap fitment, readily attached or detached, should be both economical and effective.

TRAFFIC CONTROL FOR FISH!

At Morar the North of Scotland Hydro Electric Board is controlling the upstream and downstream movement of salmon with almost 100 per cent efficiency, a rate that no police force or public authority can hope to achieve in the control of motor or pedestrian movement. The salmon must be guided in their movement so that they use the by-passes to the dam. They are deflected from the dam-stream by underwater electricity. A row of electrodes made of aluminium and about 14 feet in length, and two other electrodes farther downstream cause the fish to veer away from the dam when a pulsating current is passed across the electrodes. This guides the salmon into the by-passes. An electric-bridge counter is also used to count the salmon travelling upstream or downstream. It is certainly fitting that a little electricity should be used to protect salmon from the hazards of its large-scale hydro-production.

SCIENCE AT YOUR SERVICE

A NEW GAS-FIRE

The rising cost of gas has made many people question the gas-fire as a method of room-heating. A new design in gas-fires seems likely to introduce welcome economy. The emitting surface is curved and composed of vertical bar-type radiants. The fire also has a chimney break which serves to reduce excessive updraught, a major cause of loss of heat up the flue. An increase in total efficiency of 33 per cent over non-convective-type gas-fires is claimed. Automatic ignition is provided. The forward projection of the fire is 7½ inches, rather greater than the usual forward projection of modern gas-fires. This is due to the room needed for the curved front and to the chimney-break innovation. The fire will be available very shortly, the manufacturers announce, in gold, bronze, or beige enamel finishes.

FLUORESCENT LIGHTING IMPROVEMENT

For some time now fluorescent lighting units have been available in circular rather than in the more familiar straight tubular form. This shape of lighting unit is more compact and attractive for domestic rooms, and one of the leading makers of lighting equipment is now offering a circular tube of 16-inches diameter, the tube itself having a diameter of 1½ inches. The lighting colour is described as mellow. The necessary gap between the two ends of the tube is concealed by a 4-inch plastics-made cap, so that a completely circular appearance is given. A range of specially-designed ceiling or pendant fittings for use with these new tubes has also been designed. The new tubes have a 40-watts rating, equivalent to that of 4-feet-long straight tubes. The special starter-switch which has been designed for use with the circular unit incorporates a radio-interference suppressor.

DOOR OR GATE RETAINER

A new device for holding doors or gates open should make a wide appeal, particularly to people who, like the writer, have experienced considerable trouble with the more

usual hook and ring-headed screw system. With this, the ring tends through time to become loose, and is eventually pulled out. The new retainer is a strong hook that holds the gate or door itself, and it operates from a ground-level position. The hook-arm is attached to the top of a metal casing which can be fixed firmly by hammering into the ground. This, of course, gives the hook-arm its ground-level position. It can both be swung into place for holding the door and be subsequently released by foot movement. The casing contains rust-proofed springs and is packed with lubricant. The finish is in black enamel. The price of the retainer seems very moderate.

NYLON CLOTHES-LINE

Nylons can now be hung out to dry on a clothes-line made from the same material. Nylon to-day invades so many fields that there is only novelty when a task it cannot perform is reported. The rope of the new nylon clothes-line is treble-stranded, measures ¾ of an inch in circumference, and has a breaking strain of 1200 pounds. It is much dearer than ordinary hemp or cotton rope, but price alone is an inadequate basis for comparison. The weight of 100 feet of the nylon clothes-line is only 1½ lb. Its resistance to weathering and rubbing abrasion is very much greater. It does not swell and distort when wet, and can be readily washed in soap and water without causing deterioration. Indeed, it may well be said that a nylon clothes-line should last a washing lifetime, and longer.

A NEW GREENHOUSE PAINT

A brand of white paint long used for greenhouse interiors has now been reformulated so that fungicidal ingredients are included. It is claimed that this development gives painted surfaces in greenhouses resistance to fungoid growth. The paint is packed in large drums for commercial growers. It will not, of course, prevent fungoid attacks upon plants, though it is likely to reduce the chances of plant infection by discouraging fungus growth-centres on the greenhouse structure.

TO CORRESPONDENTS who wish fuller information regarding new inventions, publications, etc. mentioned here, addresses will be furnished, when possible, if (and only if) a stamped addressed envelope or postcard for a reply be sent to the Editor, *Chambers's Journal*, 11 Thistle Street, Edinburgh. To avoid delays, requests of this kind from correspondents abroad will be forwarded to the manufacturer or agent if stamps, postal orders, or imperial or international reply coupons are enclosed for the purpose. The issue of the *Journal* and the heading of the paragraph in which the object of inquiry is described should be given in order to facilitate reference.

The Pruning of Flowering Shrubs

SHRUBS are all very well when they are kept in order, but they are a nuisance when they grow bigger and bigger year after year: then they may provide too much shade or they may bloom so high up that we do not see their beauty. As a matter of fact, flowering shrubs are getting more and more popular, especially with people who cannot afford to employ gardeners. You put the shrubs in, giving them sufficient room to develop; you then cover the ground with sedge-peat, and there is literally little more to do. The peat smothers the weeds, and at the same time it provides a mulch; it is gradually pulled into the ground by the worms, and so the shrubs get all the organic matter they need in nature's way. The following spring the owner of the garden puts on another layer of peat two or three inches deep, and once again that is the work for the season.

In the olden days people used to plant ever-green shrubs galore. You still find them today, for instance, in the grounds of Buckingham Palace. Our grandfathers liked the cleanness and restfulness of the greenery. Nowadays, we much prefer colour, and if the blossoms can be followed by beautifully coloured berries so much the better, because then we get, so to speak, two shows for our money. The one thing against shrub planting is the expense. One has to look upon it as an investment, because a shrub border may bear for twenty years or more, so in the long run it is far cheaper than dahlias, chrysanthemums, antirrhinums, or wallflowers.

Be prepared to prune shrubs that have got too big for the spot in which they are growing. Shorten the bulk of the branches to just above some growth lower down. Do this work before the buds start to grow up in the spring, so that the bush may have a full season in which to recover. The exception to this rule lies in the case of the shrubs which flower in March or April, and with these it is better to prune after blossoming than before. Of course, the shrubs which flower on the wood produced that particular season can always have their shoots pruned back hard in the winter or early

spring. Most people cut back their buddleias in that way, and they treat some of the hypericums and the tamarix pentandra in a similar manner. From the azaleas and rhododendrons the dead flower heads should be removed, and if the plants become straggly they may be cut back fairly hard after flowering. Hamamelises, chimonanthuses, exochordas, deutzias, diervillas, the choisya ternata, and the viburnum tinus may all be cut back often flowering to ensure a better shape. The older branches of the garrya elliptica are thinned out.

If you are in doubt as to how to prune a shrub, look at it carefully and note whether it blooms on the young wood or the wood produced the previous year. If the flowers are borne on the two-year-old wood, then the pruning should be done as soon after flowering as possible. If, on the other hand, the blossoms are borne on the wood produced that season, then the pruning should be done in the dormant period—that is, in the winter, or just as growth is about to commence. There are, of course, exceptions to every rule. With most of the spiræas it pays to cut the plants down almost to ground-level in early spring. I treat my hydrangea paniculata in this manner, and the dogwood also.

If I had to give a list of shrubs that should not be pruned, I think this would include the viburnums, the veronicas, the skimmias, most of the kalmias, the daphnes, the Judas trees, the cotoneasters, the gaultherias, the grevilleas, the aralias, the pierises, the lithospermums, and the hibiscuses. Even here, however, I would not mind pruning out one or two branches in order to reduce the size of the trees. It is not a good plan to prune back all the branches in any one season, but one or two can be cut back hard each year and then the bushes do not look untidy, nor are they ever bare of flowers in any one season.

I shall be glad to help readers with their gardening problems. Write to me through the Editor, kindly enclosing a stamped addressed envelope for the reply.

W. E. SHEWELL-COOPER, M.B.E., N.D.H.

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